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# DEPARTMENT OF ENERGY'S FIVE YEAR PLAN

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## HEARING

BEFORE THE

COMMITTEE ON
GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

NOVEMBER 14, 1989

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# DEPARTMENT OF ENERGY'S FIVE-YEAR PLAN

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## TUESDAY, NOVEMBER 14, 1989

U.S. SENATE,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
*Washington, DC.*

The Committee met, pursuant to notice, at 9:30 a.m., in room SD-342, Dirksen Senate Office Building, Hon. John Glenn, Chairman of the Committee, presiding.

Present: Senators Glenn, Pryor, Stevens, and Levin.

### OPENING STATEMENT OF CHAIRMAN GLENN

Chairman GLENN. The Committee will be in order.

Some 3 years ago, this Committee began to take a closer look at the overall environment, safety and health (ES&H) problems at the Department of Energy. At that time, the U.S. General Accounting Office (GAO) issued a report, that was done at my request, which indicated that DOE operations had, for decades, been using the environment they occupy as a disposal medium for massive amounts of radioactive and toxic wastes.

You have all heard the stories going back over 40 years about how the emphasis was on "produce the weapons, don't worry about the waste, we'll get around to the waste later."

In effect, the DOE's waste management programs were outdated and were in direct and widespread violation of environmental laws, but there have been exemptions given all through the years. Moreover, the severity of the environmental contamination at DOE sites raised disturbing questions about the health and environment of major parts of this country for centuries to come.

I soon began to ask the DOE what it was going to do about this enormous problem and how much it would cost. I think the very first estimates we got were in the millions, then the billions, and eventually, by the end of last year, the costs went up to estimates that varied between $80 and $100 billion, and over a lengthy period.

Now, many of these problems began on a prior watch. To his ever lasting credit, when Admiral Watkins took charge of DOE this year, he ordered the development of a 5-year plan for environmental restoration and waste management. In developing this plan, the DOE has been consulting with States, Indian tribes and public-interest organizations, a process which is different from the way that DOE has usually done things in the past.

I support this process and hope that this kind of dialogue can continue as DOE begins the long and very difficult process of implementation. There are still many major unknowns about DOE's environmental and waste management problems, which can only be resolved by an open discussion that involves the people who will be the most directly affected.

For example, there remain serious uncertainties about the quantities of wastes discharged over a 40-year period, the conditions of the plants and the environmental safety and health problems that are likely to be encountered in the course of site cleanup. At DOE's Hanford site, for example, the uncertainty surrounding the potential risks of nuclear waste tank explosions require more detailed and expeditious characterization of the tank contents. The introduction of new and untested technologies may also post worker safety and health problems which will have to be resolved.

In order to responsibly address these issues, DOE will have to have the input of workers and the public and will have to disclose much more information about the historic operations of DOE sites.

Poor documentation of the past 40 years' waste management practices can be augmented by the institutional memory of DOE contract workers. This can only be done, however, if the workers feel secure in their job. That is why I strongly support efforts by DOE to retain as many people in the existing workforce as they could possibly use to help DOE with site cleanup.

There is also the question of compliance with environmental laws. While the DOE has entered into several environmental compliance agreements with States—I think the first one is really in my home State of Ohio, with our Attorney General Tony Celebrezze there, it was a landmark compliance agreement—many more still have to be achieved. The compliance agreement is just the beginning of the dynamic process which will involve many years of dialogue between the Federal Government and the States. The true test of DOE's 5-year plan will be its ability to meet the challenge of compliance in a good-faith manner.

Now, I am also concerned about the apparent gridlock that has been going on between the DOE and the EPA with respect to timely development of radiation cleanup standards. For the past 10 years, DOE has effectively blocked the implementation of a proposed and more stringent EPA criteria for transuranics in soil in unrestricted areas. To its credit, the Defense Department has taken the initiative and has demonstrated compliance with this proposed criteria at last at one site, on the Johnson Atoll in the South Pacific.

DOE's standard used to clean up plutonium contaminated areas at the Rocky Flats site in 1975 is about 1,000 times less stringent. Now, why this less stringent standard, particularly near a major population center.

Finally, I am concerned about what will happen several years from now when several very expensive cleanup projects will be requiring funding authorization and there may not be the same political climate that exists today to support them, how will DOE deal with the many compliance agreements that contain requirements for long-term and expensive cleanup efforts, when support for this funding may diminish. We must provide for a long-term funding commitment to cover the 30-year period projected by DOE to complete this difficult task.

The DOE's 5-year environmental restoration and waste management plan will only be as viable as its implementation. The true measurement of this will be the commitment by the DOE to comply with environmental laws and to sustain the level of funding necessary to assure that the health and environment of Americans can be protected.

The plan provides a positive first step in this process, and I welcome today's witnesses and thank them for appearing today to comment on this very, very important issue.

Senator Pryor?

## OPENING STATEMENT OF SENATOR PRYOR

Senator PRYOR. Mr. Chairman, I appreciate very much—and I know all the members of the Committee do—your holding this hearing this morning. Mr. Chairman, also I guess I owe you a little apology that I showed up today, because I bet you think, "Uh-oh, here he goes again, talking about consultants," so I want to apologize in advance. [Laughter.]

About a week ago, Mr. Chairman, I held a hearing in the Subcommittee on Federal Services relative to the Department of Energy's not only continuing, but the escalating use of private contractors to perform the extremely vital functions on some of the programs that are run by the Department of Energy.

We had, for example, Donna Fitzpatrick, the Assistant Secretary for Management and Administration. She stated, "This is a very real danger in DOE of slippage in its knowledge, its institutional memory and decisionmaking."

The second point, I think, that was brought out in that hearing last week was one of the most disturbing findings, is that top DOE officials, at the very top, were unaware of the profound and very pervasive roles played by private contractors and private consultants in very sensitive activities of the Department. Ms. Fitzpatrick confirmed that Secretary Watkins' own testimony before the Congress, announcing the 5-year plan was prepared by a major defense contractor, not just assisting Secretary Watkins, but preparing that testimony, and also assisting Secretary Watkins before the National Press Club and basically, let's say, promoting the 5-year concept.

I think that my questions today, Mr. Chairman—and once again, I do applaud your effort in looking into the 5-year plan, but my question is this, who is running the show, who is making the real basic decisions.

I would only contend, Mr. Chairman, that right now I fear it is not Federal officials. I have a fear that private contractors and private consultants, with perhaps a conflict of interest, may be making some of these decisions. For example, all of a sudden, in October, only about 2 to 3 weeks ago—I have a memorandum to support this finding—the DOE officials decided, oh, my goodness, BDM has basically exhausted all of its man-hours that they were responsible for giving us, as of November 1st we are not going to have BDM around, because they are not going to work if they do not get paid, so we have got to rush through a sole-source contract to keep them operating this 5-year program and keep them basically on the payroll.

So, what did they do, Mr. Chairman, at DOE? They gave BDM a quickie contract that they call a bridge contract, $3.6 million. They had already exhausted or burnt up, let's say, about somewhere between $3 million and $4 million, so now BDM, a major defense contractor owned by Ford-Aerospace, has another $3.6 million, sole-source, to basically set major policy with regards to these weapons plants.

Now, I don't know, Mr. Chairman, if that is the function of a contractor. I think that is a function of the Federal system. In one of the justifications for rushing through this $3.6 million, listen to what was going to happen on November 1st, perhaps, if BDM did not get this $3.6 million, so desperately needed by this defense contractor—I will put all of this in the record, Mr. Chairman:

> Without adequate support during this critical period, production sites, such as Rocky Flats, Savannah River and Idaho, could be closed and DOE headquarters will not be able to review environmental compliance documents, which could result in other site closures.

Now, Mr. Chairman, that is a total dependency upon a defense contractor running this program where I think the conflict of interest laws have either been waived or not thoroughly examined, not thoroughly asking this particular contractor who else they represent, and it is very troublesome to me. I think in your opening statement you mentioned some of these concerns that you have and I think they parallel some of my concerns. We may be approaching it from a different angle, but these are some of the problems I have with it, who is running the show and who are they really responsible to.

So, Mr. Chairman, I may have some questions later. I thank you for this opportunity.

Chairman GLENN. Thank you, Senator Pryor, very much. I know the problem that you are suggesting here with the consultants is a very real one and it is also very complex. It is not just a straightforward problem.

I know that we do not want to get into our own debate here this morning, we came to our witnesses here this morning, but just let me say that it involves whether we can pay people enough to get the people in government to do the job that has to be done from inside government or should we do like NIH has been doing for some time, now, Because of pay scales being so low, they are hiring outside, doing outside contracting of research work that should be done inside. And Congress' own ability to deal with its own pay problems that we have addressed in this room, because we are the Committee of responsibility on that, do we put our own pay up here so that we can then raise other levels of government so we can hire people that can do an adequate job in government and not have to go outside and do some of the hiring, or do we have guts enough to de-link and say, okay, we are going to keep our pay low and let everybody else go on up ahead of us so we can get good people in to administer a trillion-dollar budget?

There is no simple solution to all of this and I share your concern about where some of the decisions may be made or where some of the best advice is coming from, but it is a very, very complex problem.

With those opening remarks, we would like to call our first panel: Mr. J. Dexter Peach, Assistant Comptroller General, General Accounting Office; accompanied by Mr. Keith Fultz and Mr. Mike Duffy.

Mr. Peach, welcome again to the Committee. We have had your excellent testimony many times in the past and we look forward to your statement this morning. If you choose to give your full statement, fine, if not, the entire statement will be included in the record as though delivered, and you can summarize your statement.

## TESTIMONY OF J. DEXTER PEACH, ASSISTANT COMPTROLLER GENERAL, GENERAL ACCOUNTING OFFICE,[1] ACCOMPANIED BY KEITH FULTZ, AND MICHAEL F. DUFFY, GAO

Mr. Peach. Thank you, Mr. Chairman. It is a pleasure to have the opportunity to appear before your committee again today, along with my colleagues, to address some of the information we can provide to you on this new Department of Energy 5-year plan on environmental restoration and waste management.

Overall, this plan lays out what is a $19.1 billion effort over the next 5 years. Its three purposes are to bring DOE's facilities into compliance with environmental laws, begin cleaning up environmental contamination, and manage the variety of radioactive and hazardous waste at DOE's facilities.

In your opening statement, Mr. Chairman, you talked about the interest of this committee in this issue over the years, and it was about 3 years ago that, at the request of this committee, we furnished a report dealing broadly with the environmental problems at DOE's facilities and called upon DOE to produce some sort of overall plan to try to get a grasp of the total scope of the problem and what needed to be done to address it.

It was a little bit later, in March of 1987, when we began to focus not only on the environmental and the safety problems, but we also said the problem is even deeper than that and there is a need for a total approach to the issues of modernization, assuring safe operation and assuring adequate environmental compliance, and we recommended at that time that the DOE develop an overall broad strategy document to begin to give the Congress the information to address that issue.

Now, you have seen several reports over the last year and a half coming out of that effort. This one today is the most recent, and you used the term—and I think it is an appropriate term—that it is an important first step in beginning to lay out an approach to clean up facilities and bring operations into compliance with environmental laws.

I think it also begins to provide you and the Congress with the type of information that you need to ask the questions and to exercise effective oversight of the program as it progresses. But the next step is what kind of programs are you going to develop to begin to deal with the problems, and I want to try to deal with three important observations that I feel we can provide you today regarding this 5-year plan.

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[1] See p. 57 for Mr. Peach's prepared statement.

One will deal with the cost estimates for resolving the environmental problems, which are still very uncertain; second, the new technologies that are being discussed are not yet available to deal with all the cleanup problems or to assure any reduction in the cost of cleanup; and, lastly, it is going to take a long-term national commitment to resolve these problems, and that is also something that you alluded to in your opening remarks.

With that, let me move to the cost estimates issue. As we learned more about the significance of the problems in our years of involvement, the cost estimates grew. We started off talking about billions of dollars at one point, then we were talking about tens of billions of dollars, and then a last estimate we gave you, when we talked of cleanup and modernization, was a range of $100 to $155 billion, and of that, $35 to $65 million was to clean up environmental contamination and another $3 to $9 billion, roughly, to bring DOE's facilities into compliance with the environmental laws.

Chairman GLENN. Would you give those figures again, because I had thought the figure of $85 to $100 billion that we came up with some time ago was just for the cleanup part, and then the rest of it was modernization and ES&H compliance. Is that not correct?

Mr. PEACH. Well, the figure that we used in our testimony when we were talking earlier was $35 to $65 billion for the environmental restoration. Now, it all depends on how you want to accumulate those figures, because if you want to bring waste management into that, in dealing with the highly radioactive waste, that pushes the figure up, and if you want to bring decommissioning and decontamination of facilities into it, that also will push the figure up higher. So you easily can get up into the range that you were talking about. It just depends on what you want to define as environmental restoration in those terms.

Within that context, this 5-year plan, which goes through 1995, talks about a 30-year goal for cleaning up the sites. But, if you look at the figures behind it, they are talking about spending $19.1 billion in the next 5 years—$690 million for environmental corrective action, $6.8 billion for environmental restoration, and $11.6 billion to carry out their waste management activities over this period of time.

It would be our view that the kind of cost estimates that are contained over the next 5 years are more likely to increase and that is what you are likely to see. We already know that, while the plan was being developed, funding requirements for 1990 increased by about $357 million beyond what was contained in the proposed budget.

We have information provided to us by the outgoing contractor at Rocky Flats, Rockwell International, showing that it would need about a 38 percent increase or $178 million during the next 5-year period over what is contained in the 5-year plan.

We have also stated, based on our earlier work, that the full scope of the environmental problems is not known at many of the facilities. They are still trying to characterize the problem; and what we have seen is, the more you know, the more the costs begin to track up.

In its 5-year plan, DOE assigns a low confidence level to many of its cost estimates. If you look at the Hanford Reservation in Washington, which has about 1,000 inactive waste sites, cost estimates for more than 70 percent of the restoration activities have a low confidence level, and that is sort of indicative of the study phase that DOE is in at this point.

Another observation that I would throw in there, Mr. Chairman, is that I also have experience and have overview for the work GAO does on the Superfund program, and as we have looked at that particular program, their experience has been that as they learn more about the contamination that exists on a site the more the cost estimates tend to track up.

So, we see cost increases as being something that is likely to occur, and that leads right into the second point, the discussion in the plan about an aggressive DOE effort to develop and implement new technologies for environmental restoration and waste management, ways to minimize waste, and new or different storage approaches. DOE has now issued just recently, in October, what they call a pre-decisional draft of an applied research development demonstration, testing and evaluation plan.

We have not looked at that plan in great detail, but we have examined it. It is possible that new technologies could provide you with ways to reduce the costs in environmental restoration and waste management, and it probably makes good sense to begin to try to move ahead in that area.

What you would find with some of the approaches that are discussed is that you would get cost savings, because the radioactive and contaminated material or soil would not have to be extracted for possible shipment to other locations. Now, that can be an important occurrence, particularly because of the problems that we have in reaching agreements with State and local governments on the location of waste repositories.

But it also has another side to that particular equation, because it means that you are talking about trying to develop the waste into a form where it can be maintained on that site and there would be issues that would have to be addressed about what that meant in terms of long-term care or further possible use of that site, so the issue is difficult on either side.

I think the other point that I would make is that what I see DOE saying with this plan, from my perspective, is that we want to turn loose some of the R&D capability within our labs and elsewhere that exist within the Nation on trying to see if we can come up with new and better ways to deal with this problem.

As I said before, I think that makes some good sense, but there is a parallel that I see also, looking back at past experience, that most of the R&D capability that DOE has had over the past has been devoted towards weapons production and trying to look at the weapon itself and the production techniques. Not much was devoted to the waste management and environmental side. That pretty much tracks what happened to the commercial sector over the years, too, where most of the effort was spent on reactor development and we never closed off the waste cycle, and ultimately began to run into serious problems.

The last area that I wanted to talk about was the need for a national commitment, and you have alluded to that, also, in your opening remarks. It is a long-term program. This plan covers the next 5 years, but you are talking about a commitment to three decades, with very huge, long-term costs.

It is going to take a strong bipartisan and long-term commitment, with the potential that that commitment will be complicated as we begin to find that funding may even need to be greater than we have talked about in some of these areas, and it can change from one year to the next as we learn more about some of the sites and as we go further in this characterization effort.

The second reason for a long-term commitment is just the fact that this is probably one of the most contentious issues that we have to deal with today in government. It requires agreement between the States and local government, as well as DOE and other agencies like the Environmental Protection Agency, on how we are going to carry out the cleanup. It requires agreement on the standards that will be employed to carry out the cleanup and the question about whether they should be more uniform or whether we can deal with different standards in different places based on agreements that are reached. And, it requires agreement ultimately on waste disposal, whether we talk about moving the waste to a different repository or about bringing it into some kind of stable form on-site at a location.

To summarize, I would say the 5-year plan is a good addition to the national debate, it has good points, in terms of making a 30-year goal for the cleanup, beginning to get started on research and development efforts that may lead us to new technologies, and also a commitment for an annual update, so that we always have in front of us kind of a rolling 5-year plan for what is seen as needing to be done over the next 5 years.

I think it gives us a better understanding, but we still need to remember that we are early in the study phase and still trying to define the scope of what we are going to deal with, and it is going to be costly, no matter what scenario you might paint into the future.

With that, Mr. Chairman, I and my colleague would be pleased to try to respond to your questions.

Chairman GLENN. Thank you very much.

We will go under the 5-minute rule here this morning, so we will have a chance to move the questioning around a little bit.

You have given the figures you feel are the most reliable figures. Now, are these changing from one plan to another? And the reason I ask is we had another plan I had requested. We had several plans, as you mentioned, the defense waste management plan clear back in 1983, the environmental safety and health report for DOE complex was done at our request in July of 1988, the environmental survey preliminary summary work in November 1988, the environmental safety and health needs of DOE was at my request, came out late last year, that is one that was $91 to $200 billion, I think, was the estimate on that, and now the new 5-year plan.

Now, as I understand it, the data used in the 5-year plan and the one from late last fall that had my name connected with it were really using the same data, but, in effect, different modeling and different methodology in that we are now engaging the States, the Indian tribes, and environmental groups into a dialogue about how we are going to carry this out.

Is that the fundamental difference, or is there a different approach on this 5-year plan?

Mr. PEACH. I do not think there is fundamentally a different approach. We have not seen in our discussions with DOE, necessarily, any new data. I think it is coming off the same base of data, although, as they begin to characterize, do more studies, they learn more about particular sites. You also run into a bit of confusion when you compare one study to the other, as to whether the categories you are using are defined exactly the same way, in other words, what do you call environmental restoration and what is included within that context, what are you including within bringing the facilities within compliance; so they may shift a little bit of certain programs from one category to the other.

Chairman GLENN. Admiral Watkins has expressed the hope that new technologies can cut costs. Now, normally, research can lead us into helping cut costs, so I am all for it. But are there any specific ideas that look particularly good to you right now, as far as that becoming fact?

Mr. PEACH. My answer to that would be not right now. I mean I think the one that I understand is furtherest along is in-situ-type vitrification as one approach to dealing with waste on-site, rather than having to dig it up and move it elsewhere, but that is in a stage where they may be looking 5 years or so out to begin to try to test or prove it.

I think there are a lot of other technologies that are further back on the drawing board that they might want to try to work with, but I think it is far too early to be looking at what they it can do to lower costs. I think you have to look at the indicators on the other side, when we talk about cost, too, and that is how much they do not know about what they are dealing with yet, which can also push costs in another direction.

Chairman GLENN. Now, the vitrification uses enormous amounts of electrical power to accomplish vitrification in fairly small areas, correct?

Mr. PEACH. I think that is right.

Chairman GLENN. Is that really going to be practical. What it does, basically, is you put two big electrodes down in the ground and run an enormous amount of power through it and it heats up the soil so much, it literally makes rock out of it and freezes all the stuff right in place in artificially-made rock. This is basically the way the thing works. It is very difficult to think that could be used on any wide-scale basis to really do much, except just vitrify some very much localized areas. This can only be done right now, as I understand it, over a spread of some 35-40 feet apart, is that correct?

Mr. PEACH. I am not sure about the technology on that, Mr. Chairman. I have not studied or looked into that.

Chairman GLENN. I see some heads nodding back here.

Mr. PEACH. I do not know whether my colleagues would have any comments, but——

Chairman **Glenn**. You mentioned it and that is the reason I picked up on it, because I have always thought it might have some application in very, very small restricted areas, but as a general solution or overall problem of aquifer-level contamination and so on, we could not see that it would likely do the job.

Mr. **Peach**. There is a wide variety of problems you are dealing with. If you would move to an area like Hanford, which I mentioned earlier, you have got maybe a thousand of these inactive waste sites and the question is what is known about how much was pumped down in the ground, under what type of circumstances, how much of a soil area you are dealing with, and areas like that.

Of course, you have got different kinds of problems when you begin to deal with these tank farm areas, where you have the large tanks that contain over 90 million gallons of high-level waste right now.

Chairman **Glenn**. Yes. This is $19.1 billion over a 5-year period, they see as a start-up for this 5-year plan right now. Now, in the new budget coming in, do you have any indication of what DOE is planning to ask for? Have you talked with them about that?

Mr. **Peach**. I do not have any indication, Mr. Chairman. I suspect maybe the DOE witnesses might be in a better position to know where they are at this point. I am sure they are probably engaging in negotiations with OMB and others over those kinds of issues.

Chairman **Glenn**. Admiral Watkins has said repeatedly that one of his difficulties is just changing the culture, changing the mindset of people who have worked in that area so they have a new approach to their job, and that is a little like trying to turn a carrier around on a dime that is under full-weight, I guess. It is difficult to do that. Could you give us an assessment of how successfully that is working out up to this point, because I think that is rather key for getting a turn-around in the whole area?

Mr. **Peach**. I do not know whether it is working out as successfully at this point as the Admiral may have liked. The problem that I see with it is not only having that permeate all levels of the DOE organization, but then permeating out through the contractors that are involved.

Of course, the other side is they are having, as you have probably noted, a fairly good change of contractors at some of their major facilities. They have had the change occur at Savannah River, where they now have Westinghouse on-board, and they have had the change occur also most recently at Rockwell, where they are bringing a new contractor on-board. I think the whole question then is how they are going to make that work, because one thing that happens with contractor changeovers is that a few people change at the top, but many of the employees remain to be the same employees that were there before. You have to move all the way down in the workforce, so that the people at the contractor level and the local DOE operations office level are marching in step in the direction that the Secretary would like to have them going.

Chairman **Glenn**. Senator Stevens?

Senator **Stevens**. I do not have any questions, Mr. Chairman. Thank you very much.

Chairman GLENN. Senator Pryor?

Senator PRYOR. I have no questions. Thank you, Mr. Chairman.

Chairman GLENN. All right. I have no more right now.

Mr. Fultz and Mr. Duffy, do you have any additional comments that you wish to make?

Mr. FULTZ. Not at this time.

Mr. DUFFY. No.

Chairman GLENN. All right, fine. We do have a number of witnesses. We keep in constant touch with GAO on this, and so we appreciate your willingness to come over and testify this morning, Mr. Peach.

The second panel is Mr. Leo Duffy, Special Assistant to the Secretary of Energy for Coordination of DOE Waste Management; the Honorable Christian Holmes, Deputy Assistant Administrator, Office of Solid Waste and Emergency Response, of EPA; accompanied by Christopher Grundler, who is Director of Federal Facility Hazardous Waste Compliance Office, EPA; and the Honorable Richard B. Stewart, Assistant Attorney General, Land and Natural Resources Division, Department of Justice.

Gentlemen, welcome this morning. Mr. Duffy, if you would lead off for us, please.

## TESTIMONY OF LEO P. DUFFY, SPECIAL ASSISTANT TO THE SECRETARY FOR COORDINATION OF DOE WASTE MANAGEMENT, DEPARTMENT OF ENERGY

Mr. DUFFY. Good morning, Mr. Chairman. It is a pleasure to be here. I am pleased to appear before you today, and I would like to present a short discussion of my testimony which I will submit for the record.[1]

As you indicated, DOE is undertaking a systematic course of action to address its environmental problems. The cornerstone, we believe, is in the 5-year plan and the organization of the culture change that the Secretary has identified.

Since his confirmation Secretary Watkins has emphasized the need for open communication in order to build the Department's credibility. This is the first time that DOE has involved outside environmental groups, States, tribal nations, the EPA, the National Academy of Science, the Office of Management and Budget, and the public on such a large scale in our initial planning evolution. The utilization of these outside groups to advise and influence DOE's 5-year plan is the hallmark of Admiral Watkins' tenure at DOE. It represents what we feel is a significant change in the way the Department conducts its business. This policy was announced last June as part of the Secretary's 10-point plan.

DOE's 5-year plan contains an approach to achieve compliance with environmental laws and regulations and compliance agreements and, as you have noted and as Dexter Peach has identified, it is only a start. The plan integrates cleanup activities and waste management activities across programs previously managed by multiple DOE organizations.

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[1] See p. 70.

The separate applied research and development demonstrating, testing and evaluation section of the 5-year plan was issued last week, and will be integrated into a single plan for fiscal 1991.

For the first time, these activities will be treated as a single focused unified program. The Secretary has announced the formation of the Office of Environmental Restoration and Waste Management. A new organization under my direction.

The Office of Environmental Restoration and Waste Management will coordinate all aspects of the 5-year plan and the R&D plan. Several key features result in a significant improvement, in our opinion, in the way DOE will accomplish environmental activities.

In its 5-year plan, DOE pledges first to comply with applicable laws and regulations aimed at protecting the public health and the environment; second, to develop a prioritization system for cleanup activities that will consider the views of all external commentors; third, contain known contamination in inactive sites and thoroughly assess the nature and extent of contamination at all others, to permit realistic planning, project scheduling and budgeting for cleanup; and, fourth, to support the compliance agreements negotiated with all regulatory agencies.

The first version of this plan utilized the four-tier priority system for addressing resources on a DOE-wide basis. DOE is now developing a more scientifically rigorous methodology, to prioritize its planned activities on the basis of the threat posed to human health and environment.

We certainly cannot do this in a vacuum, and we had our first meeting in Denver with the original people who looked at the plan. In addition to that, we invited the National Resources Defense Council and the Environmental Defense Fund to participate in establishing at least the initial phases of what we should look for in a prioritization system.

We are really concerned that there is a general misconception on the part of the public, due to the Department of Energy's lack of communication, on the threat to daily life from the radioactive component versus the hazardous component in mixed-waste. In much of our waste right now, the initial indicator is not the radioactive component, it is the hazardous component.

We have situations where we are cleaning up trichloracelyne, PCB's, which have migrated, whereas, both in theory and in practice, the radioactive material was felt to be contained in a very short distance.

In time, we expect to identify how we will contain the toxic component, in addition to the radioactive component. What we really feel is that we have to have educational programs for the public, to emphasize the risk associated with both components.

The overall 5-year plan must be keyed to developing innovative technologies, as you indicated, that yield long-term disposal solutions at a lower cost. This strategy and the methodologies for waste-related R&D will continue to evolve, because much of the needed technology is neither conceptualized nor developed today.

DOE's landmark efforts to involve independent outside groups in the review of our planning effort will continue annually, with each revision of the 5-year plan and in preparation of regional implementation plans by each major field office. This includes others who may be affected by the scope and pace of the cleanup activities, such as public interest groups at Fernald, Portsmouth and Hanford.

We are about to begin updating the initial 5-year plan for the 1992–96 time frame. We sent out the document for public review for 90 days—and based on the Federal Register notice, over 5,000 copies of this document have been requested in the last 2-month period, and we average now about 10 copies a day in requests.

In conclusion, DOE's 5-year planning initiative is a starting point. It is not a panacea, it is not the universal solution of the Department's cleanup problems. By implementing this plan, we hope to gain public acceptance of our ability to manage and operate DOE-owned facilities in a safe and environmentally acceptable manner. A plan will not do that. Only performance will do that, and that will come with the time needed to implement the plan.

We expect to provide the necessary leadership and to instill within DOE the technical capability that ensures the safety and welfare of its employees and those who work in or live near our facilities.

Mr. Chairman, this concludes my opening remarks and I would be pleased to answer any questions.

Chairman GLENN. Thank you, Mr. Duffy. I think we will have everyone's testimony first and then we can have a panel discussion here.

Mr. Holmes, if you would continue the testimony, please.

## TESTIMONY OF CHRISTIAN HOLMES, DEPUTY ASSISTANT ADMINISTRATOR, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY CHRISTOPHER GRUNDLER, DIRECTOR, FEDERAL HAZARDOUS WASTE COMPLIANCE OFFICE, LISA FRIEDMAN, ASSOCIATE GENERAL COUNSEL, AND WILLIAM GUNTER, DIRECTOR, CRITERIA AND STANDARDS DIVISION, OFFICE OF RADIATION PROGRAMS

Mr. HOLMES. Thank you, Mr. Chairman. I, too, have a prepared statement which I would like to submit for the record,[1] with your permission, and I would like to make some brief oral comments.

You asked in your letter of October 20th that we be prepared to address four points, which I would like to cover briefly. Those points were our view of DOE's 5-year plan, the resources that we have to enforce and conduct oversight of the Federal, our strategy and a brief summary of the status of our compliance and cleanup efforts.

At the outset, I would like to note that the relationship between EPA and DOE has significantly improved. DOE's 5-year plan is a good foundation. Our comments on two of their drafts basically emphasize staff technology, and waste minmization plans, needs and, most important of all, the need to set priorities. This plan contains some 2,000 activity sheets which will become the backbone of their priorities. We also look forward to reviewing those.

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[1] See p. 88.

As to the resource implications, in fiscal year 1988, we had approximately 25 people on-board doing oversight compliance work, with a budget of about $500,000. We now have, going into fiscal year 1990, approximately 130 people, with a budget of about $7.5 million.

It is difficult to give you an estimate on how well we are keeping up with DOE's plans. I would say yes, we are stretched and we are keeping up, but we are also preparing our own internal 5-year plan, which will look at the essential question of what EPA must do to keep pace with DOE over the next 5 years.

Our strategy is really dictated by two laws that are very prescriptive. On the compliance side, there is the Resource Conservation and Recovery Act, which contains statutory deadlines. Those deadlines were announced in 1984 and became effective in 1988 for land disposal; in 1989 for incineration, in 1992 for storage.

The Superfund law, also contains equally prescriptive milestones. The law enables us to enter into inter-agency agreements, as well as tripartite agreements between DOE and affected States. Those agreements also have statutory mandated schedules which we must adhere to.

On compliance, we have relied very heavily on Federal facilities compliance agreements. We also rely on encouraging States to use their own authority. We also rely on our own authority to take action, where necessary, against contractors, of government-owned facilities. We also rely on citizen suits.

As to the status of our work, we now have completed some 30 inter-agency agreements since the beginning of fiscal year 1988. We have 10 more in the final stages of negotiations. In fiscal year 1990, we anticipate 54 more of these agreements.

For DOE specifically, there are some 17 facilities that we are focusing on. We feel that 15 of those 17 facilities are so-called Class I violators. There is a core group of facilities, some 9 out of those 15 that have significant violations. Of those nine facilities, EPA and the States are taking action against eight. We will be taking action against the 9th facility, which is Livermore, during this year.

On the DOD side, we have identified some 31 high-priority violators; we are taking action against 30 of those.

On the Superfund side, there are 115 Federal facilities on the National Priorities List. This is a very important number, because it means that all 115 of those facilities have to comply, once again, to the deadlines and procedures set up in the statute.

In closing, I would like to just make several observations on what we have concluded. I am new to this job. I have been on it for about a month. My profession is crisis management in and out of the government, and I have never seen a problem as complicated as this. The reason it is complicated is that I think there may be public expectations that there are quick fixes.

There are no quick fixes. This is going to be a long, arduous effort. It is an effort that the National Research Council, in their comments on the 5-year plan, said that we must go carefully and intelligently, and that is just what we are trying to do in our oversight role with DOE.

Thank you.

Chairman GLENN. Thank you, Mr. Holmes.

The Honorable Richard B. Stewart, Assistant Attorney General, Land and Natural Resources Division, Department of Justice.

Mr. Stewart?

## TESTIMONY OF RICHARD B. STEWART, ASSISTANT ATTORNEY GENERAL, LAND AND NATURAL RESOURCES DIVISION, DEPARTMENT OF JUSTICE

Mr. STEWART. Thank you, Mr. Chairman. I will also submit my written statement for the record—and summarize briefly the key points.[1]

Chairman GLENN. It will be included in its entirety.

Mr. STEWART. The Federal Government has made progress towards cleaning up Federal facilities, but I guess all of us here are here because we acknowledge that a great deal more remains to be done.

The Justice Department really has two roles in this process: One, that we bring enforcement actions in court, civil enforcement actions against Federal contractors, and criminal enforcement actions against contractors or government or contractor employees.

The second role we play is assisting in the negotiation of interagency agreements and Federal facility compliance agreements between EPA, other Federal agencies and the interested States when they are involved, to get to compliance and clean up on an enforceable, legally enforceable schedule. I think Mr. Holmes has summarized the progress that has been made in reaching these agreements and pursuing additional ones for Federal facilities.

You asked the Department to address three questions. The first was contrasting these inter-agency agreements or Federal facility compliance agreements and consent decrees, and our experience is that the inter-agency agreements are the superior way to go. They have a number of virtues. They are enforceable by third parties, including citizens and States.

They include a streamlined dispute resolution process with EPA as the final arbiter. They can establish stipulated penalties for violations. They clarify the respective roles of EPA and the Federal agency in determining the cleanup decisions. They can include both the chemical and radioactive, hazardous elements in Energy Department wastes, and they could be comprehensive, probably the most important thing. They allow all interested authorities to work out the requirements, not only of the Superfund law, but RCRA, the Clean Water Act and the Clean Air Act. We can have in a single document a cleanup plan that covers everything in a facility.

Of course, the inter-agency agreements are pursuant to the Superfund law. Where the Superfund law does not apply to a particular facility, there is a Federal facility compliance agreement process that EPA has developed under RCRA, the Clean Water Act and the Clean Air Act, that can provide for similar agreements.

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[1] See p. 111.

The consent decree approach, by contrast, is more limited. Any such decree must be the result of litigation, rather than informal negotiation. It must be limited to the particular circumstances giving rise to the litigation and, therefore, may be narrow in its focus and may not be able to address all of the problems at a site.

Where EPA asserts its enforcement authority against another Federal agency, its action cannot result in a justiciable controversy, because the two agencies are both components of the Executive Branch and that limits the use of consent decrees as well.

Finally, such decrees are generally enforceable only by the parties to the decree, while inter-agency agreements and Federal facility compliance agreements are enforceable by any citizen under the citizen suit provisions of the environmental laws. For these reasons, we believe that such agreements are superior to consent decrees.

I might just mention parenthetically, the Chairman mentioned the agreement at the Fernald plant that Attorney General Celebrezze had negotiated. That was a consent decree, at least as between the State and the Energy Department, but that was before the amendments to the Superfund law in 1986, and I understand that the Attorney General was concerned that an agreement, if it were not part of a consent decree, might not be enforceable. Well, Congress resolved that question in 1986 and made very clear that the inter-agency agreements are enforceable in Federal court by any person, under the citizen suit provisions.

Your second question asked about the status of the so-called unitary executive principle, in light of certain recent cases. That phrase "unitary executive" is shorthand for some basic principles of constitutional structure that vest the executive authority in a single President and requires that the President take care that the laws be faithfully executed.

This means that the President has the authority to resolve disputes between Federal agencies. He has the power to do so. He is not required to exercise it, but, in our view, the President does, under the Constitution, have the discretionary authority to resolve disputes between Federal agencies. Therefore, a lawsuit between two Federal agencies cannot be a justiciable controversy, because there is the President who will resolve that dispute, and it does not call into the case or controversy provisions of Article III.

You have mentioned some recent cases and developments that may affect that view. Set forth in my written statement, we do not see that any of those developments really affect the basic unitary executive principle.

The third question that you asked is our resources and plans for criminal investigations at Federal facilities, with particular reference to the Rocky Flats plant.

Under our general practice, and the necessity to preserve the integrity and effectiveness of criminal investigations, I cannot provide any specific information on these subjects, but I will say that the criminal investigation at Rocky Flats, which was commenced with a search warrant executed last June at Rocky Flats, is proceeding. I personally have gone out and taken steps to insure that it is being prosecuted diligently and vigorously, consistent with the need for a complete and thorough inquiry and review, and we will continue to fight environmental violations with the full force of all of our resources.

I might add, there was reference earlier this morning to the change in culture at DOE facilities, and I think the Rocky Flats search, coupled with the previous successful Aberdeen prosecution of Federal employees, has certainly, from what I hear from DOE and from contractors, heightened their awareness of the need to comply with the environmental laws very dramatically.

In closing, I would like to emphasize that the Department appreciates the interest of the Chairman and the committee in these important issues. We are committed to insuring that all Federal facilities are cleaned up and reach full compliance and are trying to work with the Congress, EPA, DOE and other Federal agencies and the States to be sure that we get to this goal as soon as possible and in a legally enforceable way.

Thank you, Mr. Chairman.

Chairman GLENN. Thank you, Mr. Stewart.

You know, we have talked all these years about cleanup, and we are going to do with it, drawing plans and getting data, getting all this stuff together, and that is the first step, obviously. It seems to me we are coming down now to where we are going to be talking about $4 or $5 billion a year to go out and actually start doing the cleanup.

I was struck with the piece that was in The New York Times last Friday—I am sure you saw it, Mr. Duffy, you were referred to in that article—about where we are going to put this stuff. This article referred specifically to Rocky Flats, but I would ask the same question for Fernald, in my home State of Ohio, and all the other sites. We have 17 sites in 12 States, and some smaller sites beyond those.

But in your statement, on page 11, you say, "We intend to do everything scientifically feasible to solve problems in-situ, and not transfer problems from one hole in the ground to another hole in the ground. DOE's highest waste technology priority—one which proposes tremendous opportunity and challenge for our national laboratories, universities, and industry—is how to treat this contamination without moving it."

Now, I would like to know what you can tell us about this morning. Is this going to be the pattern now, that where we have waste, we are going to keep them on-site and we will, in effect, wind up at these 17 sites, basically memorializing these places, putting a fence around it and a guard on the gate and that is it?

Mr. DUFFY. No, sir, Mr. Chairman. What we were referring to is in-situ solutions, not necessarily leaving the waste in place. In the research and development plan that came out in October and also in certain sections of the 5-year plan, we identify technologies, for example, for bioremediation, using in-situ microorganisms that can break down the hazardous component. Again, there are secondary and tertiary components that come out of bioremediation and we have to solve that problem by breaking it down to the elemental aspects and breaking the molecules down to less hazardous molecules, but it solves the problem, it does not leave the problem in place.

We also have an experiment going on at Butte, Montana for extraction of extremely small concentrations of copper from the mine in Butte, and the application of microorganisms in that case for extraction of very small concentrations of metals or changing the metal valence gives us the capability for solving a problem in place.

Again, as was identified, this was a 5- to 10-year program to develop and insure ourselves that this capability exists, but it has been demonstrated for organics in the commercial industry. In fact, the PCB operation on the Hudson River and the Mohawk River is being evaluated now by the State of New York, to use an in-situ microorganism for destruction of PCB's. It has been used in pentachlorophenol, which is a wood treatment agent. There are many types of capabilities in this area.

In-situ vitrification, you identified as a methodology. That is a stabilizing methodology. It is expensive in the eastern, wet section of the country. In the Hanford area, where the soil is about 62 percent alkaline oxide and where the hydroelectric electric power is about 1.3 to 2.2 cents per kilowatt hour, it becomes a more effective means for stabilization and containment. Those are some of the areas we are talking about. We are not looking at just keeping waste in place. We are looking at solving the problem by changing the composition of the waste, so it is less hazardous and less toxic.

Chairman GLENN. Do you have this defined enough now that you know whether I can tell the people at Fernald whether those pits out behind the plant are going to be taken out of there or are they going to be memorialized in place?

Mr. DUFFY. At the present time, as I understand, Pit 4 is being put into an interim Part B permit, with monitoring operation. I am not a——

Chairman GLENN. What does interim Part B mean?

Mr. DUFFY. It means that you have to monitor the situation. It is a cap over the existing material and there is a monitoring program that goes with it. That is an extremely expensive program, if you look at it for the long run. As an example, in some cases, where we have this capping operation, it costs us about a million dollars a year to monitor the contaminants, to see that there is no migration. This is an interim-type of solution.

In fact, that is one of the solutions we have used right now for surface contamination at Oak Ridge. There are about 92 impoundments down there that are in Part B interim status, which means that you have to monitor them over a time period to see that there is no migration. If there is migration, then you have to treat it.

Chairman GLENN. Well, do we have the technology to say that if we memorialize these sites, that we now know enough to cut off contamination, further contamination of aquifer levels or migration of these wastes off-site and things like that? Do we have that kind of technology now, if we say we are going to leave some of this stuff in place?

Mr. DUFFY. I think in stabilization it has not been demonstrated that it will last more than 300 or 500 years, so I cannot say that we have that technology in place.

I do think that, in the judicious application of in-situ vitrification for a sub-base retardant or barrier, that we can design that to last for a much longer period of time. What we are really using now is organic barriers, chemical barriers and things of that nature, which do not have a history of long-term capability.

Chairman **Glenn**. My time is up, but let me ask just one more, if I might, Senator Pryor.

Do you envision right now major transfers of large amounts of soil and materials and contaminated large amounts cross-country to different sites?

Mr. **Duffy**. No, that is not our objective. In fact, based on our experience, as you realize, with the trans-uranic decision plan that we put out, many Governors identified will not take waste from this State, that State, other States, many of them had their own problems from the standpoint of where they would best have their waste stored. We are going to have to resolve that on a consensus basis with the various State governments and Congress.

Chairman **Glenn**. Senator Pryor?

Senator **Pryor**. Thank you, Mr. Chairman. Mr. Chairman, I am going to try and engage in a little colloquy here with Mr. Duffy and Mr. Holmes, if that is permissible.

Mr. Holmes, you are new on the job and we welcome you. We know it is a complicated issue. I do not have anywhere near the knowledge that my distinguished Chairman, Senator Glenn, has in this field, but my concern is sort of the practical working aspects of finding someway that the public is going to know who will be accountable and know is doing the job, some kind of a plan, call it a 5-year plan.

We have been around here a long time and we hear about plans and task forces and all of this, and I think I am just kind of seeking a little assurance this morning that the "tiger teams," are not paper tigers. That is what I am concerned about. I hope this is not some public relations gimmick. I hope this is a sincere effort, and I assume at this time it is.

EPA, for example, hires a company called the NUS Corporation. I do not know if you are aware of this. Under the law, EPA has to monitor the compliance aspects of the weapons plants. Now, DOE also hires this same company, NUS Corporation. I am going to put these teams in the record, a couple of them, Mr. Chairman, I have just chosen at random.[1]

In fact, in the environmental team of the Pantex tiger team, 8 of the 11 individuals on that particular team, 8 of the 11 work for the NUS Corporation and they are also hired by the Environmental Protection Agency, by Mr. Holmes' group.

Now, I am beginning to wonder if that is not a little bit incestuous—9 of 17 of the environmental sub-team of Tiger Team Y-12, or maybe it is still the Pantex, 9 of 17 of those tiger team members work for the NUS Corporation. They are private contractors, private consultants. They also work for EPA. They are in charge of monitoring the compliance of DOE.

Now, I am wondering if we are really looking at the potential for conflict. Mr. Duffy, would you answer that, please?

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[1] See p. 183.

Mr. **Duffy**. We make the firms that participate in a tiger team sign a conflict of interest statement before they can be appointed to the team, and they recognize that that is a potential problem and we recognize that. All tiger teams are run by Department of Energy leaders, and the majority of the task leaders are Department of Energy personnel.

Senator **Pryor**. I am a lawyer and, you know, it is hard to represent the plaintiff and the defendant at the same time, and I am wondering if some of these people, private contractors and consultants, are not doing just that, are they representing two different interests.

Mr. **Duffy**. I think in both cases, in the case of the Environmental Protection Agency—and they can speak for themselves—we are both doing an oversight-type operation on the contracts. We are enforcing the regulatory and compliance laws identified for that contractor and his performance, so it is an identification of whether one is out of compliance or in compliance requirements for both of us.

Senator **Pryor**. Does it concern you, Mr. Holmes, that those people you hire at EPA, the private consulting or contracting force, are also part of the tiger teams of DOE? Does that present any problems to you?

Mr. **Holmes**. I understand that we will not hire the same firm working for both EPA and DOE at the same site. But where it can become a problem, obviously, you know, it is the same company, they talk to each other at lunch, I understand that also. We are pretty sensitive to this problem of conflict. You have helped us become sensitive on the Superfund site and, as you know, we have taken measures to make sure that the contractor that is developing our policy for us for the Superfund is not the same contractor who is doing the cleanup, and that has been a recent development.

We also, on the contractor hiring front, we just hired 500 people in EPA, full-time EPA people in the Superfund program. We could have gone out and just let a mega contract and gotten the bodies that way, but we did not.

Senator **Pryor**. DOE, for example, Mr. Duffy, has 16,005 employees. Could you not go to those 16,005 employees and find, say, 30 people in that Federal workforce who do have a conflict of interest, who are there to serve one interest and one interest only, rather than going to the private sector? Is that possible?

Mr. **Duffy**. Right now, it is extremely difficult, because the Department of Energy's background and experience has not been in the environmental restoration and waste management operation and, as a result, we have exceptional problems in attracting these kinds of people.

In the new organization that the Secretary set up, we have authority for 136 people and we need 67 additional people to fill that billet. The technologies that we are talking about are very unique, when it comes to the available resources in the industry and within the Department of Energy. In fact, in the 5-year plan and in the 5-year research and development plan, we have identified that the human resource is the major problem that the Department of Energy has at the current time.

Senator **Pryor**. My time is expired. Thank you.

Chairman GLENN. Thank you.

What is going to be requested in next year's budget to do the cleanup? We talk about $19.1 billion over 5 years. What is going to be requested next year, do you know?

Mr. DUFFY. It is between $2.8 billion and $3.3 billion, depending on what we look at with regard to the data sheets that come in and what kind of comments we get. It is an estimate, it is not a budget request. It is what we feel is required to perform what we presently know as the requirements for compliance of waste management and R&D.

Chairman GLENN. All right. Now, is this still mainly going to be R&D, or are we going to actually start digging dirt and moving things around and actually curing the problem that we have talked about?

Mr. DUFFY. I think that is a good point, Mr. Chairman. In fact, at Oak Ridge, we have spent $832 million in the last 4 years in cleanup-type operation for surface cleanup, which is surface-type contamination, mercury, cadmium, uranium, and that is to reduce the amount of spread off-site. In fact, in the latest report, I believe there is a potential for something like 25,000 to 30,000 acres of off-site contamination in the White Oak Reservoir, the White Oak streams, and the North Oak Poplar streams. The actual contamination areas on-site are less than 500 acres, so we have 500 acres of material that potentially can contaminate 30,000. So the initial approach at Oak Ridge is to clean up the surface contamination and stabilize it and put it into impoundments, but we are doing cleanup.

Chairman GLENN. Going back to what we were talking about before we got to your statements this morning, when Senator Pryor and I were talking. Admiral Watkins has talked to me time after time after time about the difficulty he is having getting good people to come in and staff some of the efforts, because of government pay scales or lack of adequate pay scales. If we do not do something about this, are we going to be able to proceed the way we should?

Mr. DUFFY. It is going to be extremely difficult, but one of the things that we did look at is we may have to bring in younger personnel, train them in the university or in the self-training program within the Department of Energy and supervise them to the point where we bring them up to speed. We recognize that when they get the experience they are going to leave. So, we try to attract young, interested scientists and engineers to work this program, but again, we are going to be working with a limited amount of experience.

Chairman GLENN. Mr. Holmes, we had testimony about EPA here a few weeks ago from the IG that about other enforcement actions, not in this particular area. The pattern at EPA had quite often been big fines, big press release and then negotiations to reduce the fines to where they were meaningless and that had been a pattern, rather than the exception, and along with it no paper trail to really say why. Now, that is in some other areas.

I know that you are brand new on the job, as you indicated a little while ago, but how are you going to go about this? Are we now going to have some fines and some enforcement that means something at EPA, or are we going to follow this same old pattern?

Mr. **Holmes**. We have just completed kind of our equivalent to the DOE 5-year plan, which was the Superfund 90-day study and I think the key decision is they made one major management decision which was to set up time lines to force those who have created the pollution to come to the table, and if they do not come to the table, to issue administrative orders automatically. That has caused a huge ripple effect amongst those who are potentially culpable.

Over the last 2 years, things have gotten tougher and we have collected a billion dollars in settlements from PRP. In other words, they have conducted inside services to the equivalent of a billion dollars from potentially responsible parties. That is not a fine——

Chairman **Glenn**. That is not a real fine, but we have collected.

Mr. **Holmes**. Right. In terms of fines and going after the contractors who are operating government facilities, we have gone after 6 fines, and the largest one is the Westinghouse at Fernald, which we are actually negotiating in Cincinnati today. My impression of those fines are they are not huge, but, on the other hand, they are giving the message.

Chairman **Glenn**. Well, what we found in the IG testimony that day was, and I think he testified to the fact that it was cheaper for people to go ahead and get fined, negotiate a reduction and continue their polluting, and that had been not unusual. That was the way things were being done, by and large. Do you have any comment on that?

Mr. **Holmes**. Well, clearly, in the case of Fernald, from looking at the history there, since 1984 there has been a series of notices of violations and the problem kept on occurring. I think the real question as to whether or not we can turn that around is how tough the enforcement is going to be, and my reading, in terms of where we are putting the money and where we are putting the people at EPA, two-thirds of that 500 I talked about are people who are doing the enforcement work.

Chairman **Glenn**. Mr. Stewart, do you have any comment on that, as to why we cannot have a paper trail within government that, once a fine is levied, why it has to be negotiated down to being meaningless and no track record really kept?

Mr. **Stewart**. Well, we get into it when we go to court. On the one hand, EPA has been developing policies for what levels of fines are appropriate and, on the other hand, we have to look to what a judge will award and we try to develop a consistent policy over time.

I might say that I think that your remarks do indicate the value of criminal enforcement as another arm here, since jail time is one cost that cannot be passed on to the customer.

Chairman **Glenn**. Yes. One of the other things, before I turn it over to Senator Pryor, is what has been the past practice. I know Admiral Watkins is turning this around. However, it has been the policy that DOE even provided through their contracts to pay the contractors' fines. That was part of the arrangement.

Senator **Pryor**. Excuse me. Would you say that again?

Chairman **Glenn**. DOE even paid the contractors' fines where that was part of the agreement, since they had a GOCO arrangement and it was being done sometimes at a dollar-a-year-type operation or whatever, and so they were indemnified even if some other agency came in and sued them, they did not have to pay themselves. Is that not correct, Mr. Duffy?

Mr. Duffy. That was in the past, but as you know, in your discussion with the Secretary, his new 10-point program identified that 51 percent of the award fee would be associated with environmental activities, and if the contractor did not meet the 51 percent, the whole award fee would go down the drain and that could be in the ultimate, up to $10 to $20 million of fee every year, which is a significant penalty.

Chairman Glenn. I prefaced my statement by saying that Admiral Watkins is trying to turn these things around and he is and I have confidence he is going to be able to do a lot.

Well, who pays? Let us say Westinghouse is fined at Fernald by a suit from EPA or someone else, who pays?

Mr. Duffy. Under that specific one, as I remember, the question, it was "Should Westinghouse not negotiate with the Environmental Protection Agency on a penalty or fine?" At the time, when I was involved in it, we said if you negotiate it is not guaranteed that the Department of Energy will reimburse you.

Chairman Glenn. Well, as of right now—as I say, I want to give Admiral Watkins credit for trying to turn this around—as of right now, if there is a fine levied against a Department of Energy facility in the nuclear weapons complex right now, let us say it is Hanford or Oak Ridge or wherever, who pays?

Mr. Duffy. I am not certain on that, but I think if it is negligence, the contractor pays. If it is a fine on the basis of some other aspect, then the Department, based on the contract, would reimburse the contractor.

Chairman Glenn. Has there ever been a fine that you have refused to pay?

Mr. Duffy. I think there are three, if I am not mistaken. There are fines that are under litigation at the present time, based on Federal supremacy, and that is beyond my area of expertise. I think the Department of Justice probably could discuss that further.

Chairman Glenn. Do you know, Mr. Stewart? Do you know whether there have been any fines where DOE has refused to pay?

Mr. Stewart. I do not know of any. I do know that these are in past contracts and that the Energy Department, as these come up for renegotiation, is going to change its policies.

Mr. Duffy. We could submit for the record the ones that are outstanding that I know of that are under litigation at the time.[1]

Chairman Glenn. I would appreciate that.

Thank you. My time is more than up.

Senator Pryor?

Senator Pryor. Thank you, Mr. Chairman. This is a fascinating set of questions you just posed and I am very interested, and I know all of us are.

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[1] See p. 194.

Mr. Duffy, I think you stated, I do not know whether it was in your original statement or in just a comment, that there are 30 violators, companies on the list, is that—did I hear that?

Mr. DUFFY. I did not state that, but there are 47 compliance agreements based on violations that were identified.

Senator PRYOR. And some of these go back, say, a goodly number of years?

Mr. DUFFY. The earliest goes back to 1979, some of them are in compliance agreements. We have a tri-party agreement at Hanford that was negotiated in February 1989 on the basis of outstanding compliance deficiencies.

Senator PRYOR. Now, these are companies who have basically been in violation of the compliance laws, correct?

Mr. DUFFY. In violation of environmental statutes such as, the Clean Water Act, the Safe Drinking Water Act, RCRA, TOSCA. We found potential allegations in our targeting evaluations just recently on the basis of land disposal restrictions, and we immediately notified the State and EPA.

Senator PRYOR. All right. Mr. Duffy, would it be possible for you to submit for me at a later date, not today, the names of these particular companies? [1]

Mr. DUFFY. The compliance agreements and the companies that are operating the facilities for us?

Senator PRYOR. Yes.

Mr. DUFFY. Yes, sir.

Senator PRYOR. The reason I am requesting that, I want to look at these people who are allegedly in violation. I would like to check to see, run a cross-check to see possibly what firms they are hiring in the private sector that are also being hired by you, by EPA, and conceivably by the Department of Defense. I do not think there is any system of cross-checking this, and if you would supply me with those names, I have a very, very aggressive little staff and they will go to work on this and they are going to find out this answer and it will be interesting, I think, I think we are going to find that all of these private contractors all work for you and each other and Oak Ridge and you name it, they are all out there together. It is this incestuous pool, I fear.

For example, I would like to return to this BDM contract. I know my good friend, the Chairman, said that Admiral Watkins is trying to straighten all this out, but as long as Admiral Watkins keeps saying renew BDM and say here is another $3.6 million BDM, that is a pretty discouraging shock wave throughout the Federal system, to that Federal employee out there who is trying to do a good job, knowing that that person at the next desk is getting paid three times what they are getting paid to do perhaps the same function.

Mr. DUFFY. Well, I hope that is not the case, that they are paid three times more than the person next to them. I find that not to be the case, in the ones I know about it.

Senator PRYOR. All right, sir.

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[1] See p. 194.

Mr. DUFFY. There are cases where contractors are making three times the salaries of our operations managers. I think Secretary Watkins identified that the last time he was here.

Senator PRYOR. Mr. Chairman, with your permission, I am going to put the memoranda dated October 31st and following, about the history of how a decision is made to give to the private contractor another $3.6 million, after they have used up their credits, let us say, and the question I am going to ask later is why, just all of a sudden, DOE looks up and says, "My gosh, we may have to close down several of these production weapons facilities if we cannot have BDM around any longer to advise us."

Mr. DUFFY. Senator Pryor, I think that the specific contract you are referring to was in the process for 4 months as a bridging contract. It was not on the basis of a short-term turn-around. It is the methodology for awarding contracts within a department, and four months is a significant length of time.

Senator PRYOR. But the request was made for action on October 31st, and I think that it was signed off later that afternoon, so that was a pretty quick turn-around, to get them back on the payroll by November 1st, BDM. Anyway, that will be for another day.

Thank you, Mr. Duffy.

I will ask that these be placed in the record.[1]

Chairman GLENN. Without objection, it is so ordered.

Senator PRYOR. Thank you, Mr. Chairman.

Chairman GLENN. Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

Mr. Duffy, there is a chart on page 15 of the 5-year plan. I gather that the numbers that are reflected for the years 1989 and 1990 are the actual appropriations for cleanup activities for those two years, is that right?

Mr. DUFFY. The 1989 is. The 1990 is still in sequester, as far as I know, and we have an estimate for what it will be.

Senator LEVIN. But for the sequester, is that the amount appropriated for 1990?

Mr. DUFFY. That is the amount requested, yes, sir.

Senator LEVIN. How does that compare to the amount appropriated, do you know?

Mr. DUFFY. Pardon?

Senator LEVIN. How would that compare to the amount appropriated for 1990?

Mr. DUFFY. I believe the amount requested and the amount appropriated were within about $120 million.

Senator LEVIN. Now, looking at 1991——

Mr. DUFFY. In fact, the approval was for $357 million more than the original requested, under the Bush budget.

Senator LEVIN. Say that again.

Mr. DUFFY. The amount approved and authorized that is presently under review from the budgetary standpoint was $357 million more than was initially requested.

Senator LEVIN. You mean that the budget request to the Congress was less than what was approved——

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[1] See pp. 198 and 201.

Mr. DUFFY. Than was appropriated, that is right, by $350 million some-odd.

Senator LEVIN. We appropriated more than you requested?

Mr. DUFFY. More money than was originally requested, because of the sensitivity and need for cleanup.

Senator LEVIN. All right. Now, looking at the 1991 number, has that been approved by OMB already? Has this chart been approved, so that we can expect that that will be the level requested for 1991?

Mr. DUFFY. I do not think it has been totally approved, but it has been reviewed and identified as a potentially approved budget request, yes, sir. There are presently negotiations going on whether or not there should be a reduction in that.

Senator LEVIN. Can you use more than that, if Congress authorized and appropriated more than this?

Mr. DUFFY. We can probably use more money than is appropriated, but it would not be used as effectively, based on one of the things we just identified. We do not have within the United States—I am not talking just of the Department of Energy—if you look at the Superfund and you look at our program, we are talking about a tremendous amount of talent required for cleanup, and to put that money out into the industry at this time would be ineffective and inefficient, in our opinion.

Senator LEVIN. So that the number which you have down here for 1991, which looks like, what is that, about——

Mr. DUFFY. About $3.3 billion.

Senator LEVIN [continuing]. $3.3 billion——

Mr. DUFFY. Right.

Senator LEVIN [continuing]. You believe you can effectively use $3.3 billion?

Mr. DUFFY. Yes, sir.

Senator LEVIN. You do not——

Mr. DUFFY. Well, again, you know, we would improve efficiency if we had more talent available. Now we have to get out there and we have to really investigate so we know the extent of the problem. Each year we go along, we contaminate more subsurface ground, so we have to start, as Senator Glenn indicated, stopping the flow of contamination and cleaning up the problem. If we had more talent, we would be more effective and we would use the money better.

Senator LEVIN. Given what you believe you have available in terms of talent, do you believe you can effectively use the amount shown for the 1991 figure?

Mr. DUFFY. Yes, sir.

Senator LEVIN. But no more?

Mr. DUFFY. That is a speculative question, Senator. You realize, I could say yes, I could use more, but less effectively. You know, I do not know what——

Senator LEVIN. What do you believe? I just want to know what you actually believe.

Mr. DUFFY. I think that number that we have put in is based on our best information available at the present time.

Senator LEVIN. And do you believe that the OMB will go along with this number?

Mr. DUFFY. Yes, sir.

Senator LEVIN. Okay. What is the current negotiation over, then, with the OMB, if it is not over that number?

Mr. DUFFY. It is on the—we have, as you see, four priorities within that operation. Some of the priority IV's and extending out the length of time on priority III's and II's would be capable.

Senator LEVIN. There are no negotiations going on with OMB over the overall number?

Mr. DUFFY. Not to my knowledge, no.

Senator LEVIN. All right.

Here is a question for——

Mr. DUFFY. There is a range in that number, $2.8 billion to $3.3 billion.

Senator LEVIN. Pardon?

Mr. DUFFY. There is a range in that number. It runs about $2.8 billion to $3.3 billion.

Senator LEVIN. Well, the overall number, though, is $3.3 billion.

Mr. DUFFY. Right, but then it has four priorities in it.

Senator LEVIN. That is correct, but I was talking about the $3.3 billion.

Mr. DUFFY. Right.

Senator LEVIN. You can use the $3.3 billion?

Mr. DUFFY. Yes, we think so.

Senator LEVIN. Okay.

Just a question for Mr. Holmes. As I understand it, there has been a delay in adopting cleanup standards, particularly for radiation. Can you explain why there has been such a delay, if in fact that is the true situation?

Mr. HOLMES. We are working with—first of all, our cleanup standards are derived from the Uranium Mill Tailings Act, they date back to the 1976 standards. We are applying those standards now. We and DOE are working on new standards. I am told by the experts that it will take some 3 years for those standards to be put into place. Those standards are being applied right now at Johnson Atoll. DOD seems to be able to live with them, in terms of standards for radiation left in the ground.

Senator LEVIN. Can I just ask one follow-up question. My time is up, Mr. Chairman.

Has there been some resistance from the DOE to a standard relative to the amount of plutonium in soil over the last 10 years or so?

Mr. HOLMES. There has been a lot of debate. I am not quite sure——

Senator LEVIN. A lot of what?

Mr. HOLMES. Debate. I am not quite sure if I characterize it as resistance, in part because I have not personally been involved.

Senator LEVIN. From what you know, has there been resistance?

Mr. HOLMES. I cannot call it resistance.

Senator LEVIN. How would you more diplomatically characterize it?

Mr. HOLMES. I think I have been pretty good. [Laughter.]

Senator LEVIN. How would you both be diplomatic and accurate?

Mr. HOLMES. Diplomatic and accurate? I would say that DOE would probably like us to make those standards somewhat less stringent, but that has not been given to us in a final statement from DOE. Maybe DOE would like to comment.

**Senator LEVIN.** They disagree with the proposed standard? Is that fair, Mr. Holmes, to say DOE disagrees with your proposed standard?

**Mr. HOLMES.** Yes, that's right.

**Senator LEVIN.** Okay. And that has been going on for a long time?

**Mr. HOLMES.** Yes.

**Senator LEVIN.** And when are you going to adopt a standard?

**Mr. HOLMES.** Well, the projection is 3 years from now, it will take us that long to develop a new one. I personally find that to be a long time, but I will find out why it takes so long.

**Senator LEVIN.** I am way over time.

**Chairman GLENN.** Go ahead, follow up, if you want to.

**Senator LEVIN.** Well, it has been going on a long time, and the question is why 3 years more.

**Mr. HOLMES.** You know, I don't know the answer to that. I have with me one person that we brought up here, in case this question was asked, Mr. Gunter, who is with our Office of Radiation Programs. Can I give him a shot at that?

**Senator LEVIN.** It is up to the Chairman.

**Chairman GLENN.** Sure.

**Senator LEVIN.** The question is why 3 years more, given the length of time it has already taken to adopt a standard?

**Mr. GUNTER.** I think it would be helpful if I clarified one thing regarding the standard. My name is Bill Gunter and I am the Director of the Criteria and Standards Division in the Office of Radiation Programs, and I have been on the job for about 2 years.

One of the first things that I did when I took the job was to review the status of our various regulatory projects, and there are two projects that are relevant to this discussion this morning. One is the one that has been referred to for cleanup of transuranic contamination. This is the project for which we had a set of interim recommendations out for comment in the mid-seventies. That interim guidance applies only to transuranic contamination.

There is a second project which we call the residual radioactivity project, which was begun in the early eighties and which addresses the question of cleanup standards for all radiological contamination.

One of the first decisions that was made after I came on the job is that we needed to incorporate the project for cleanup of transuranic contaminations into the project for cleanup of all radiological contaminations, so that we would have a unified approach and a consistent rationale across both of those sets of standards.

The residual radioactivity project is one which, unfortunately, has had a start and go history, and this has occurred because of the action in other regulatory projects. We have been working on standards under the Clean Air Act and on standards for high-level waste, and in both of those cases there has been litigation which has resulted in court orders which required us to redo portions of the standards, and when one of those court orders would be issued, we would have to divert staff from the residual radioactivity project to take care of the court orders. That is why the delays have occurred.

Our current schedule for the residual project is that we estimate it will take about 3 years to finish that job, and that will be the comprehensive set of standards for radiological contamination, including transuranic.

Senator LEVIN. I find it, frankly, incredible that it should take this long. We already have some experience, as I understand, with this type of cleanup, is that correct, at Johnson Atoll?

Mr. GUNTER. That is correct.

Senator LEVIN. And the fact that staff has been diverted to other projects is unacceptable, given the length of time this has taken. You should be seeking additional staff. Have you done that, from OMB or from Congress?

Mr. GUNTER. There have been times where staff have been identified to work on the project, but, again, another court order comes down and diversion takes place. It has happened several times.

Senator LEVIN. I am way over my allotted time. Thank you, Mr. Chairman.

Chairman GLENN. Senator Pryor?

Senator PRYOR. The Chairman has granted me 20 seconds for a request. Mr. Holmes and Mr. Duffy, I would like to request of both of you that each, during this coming 3 years on developing the standard, I would like every 3 months for each of you to send to me the names of those firms that work for EPA, those consultants helping to draft that standard from EPA.

And Mr. Duffy, from DOE, I would like for you to furnish me every 3 months who is doing work on that standard on your side.

Mr. Chairman, I bet you we are going to find some of the same people.

Mr. DUFFY. Could I make a comment concerning standards? Part of the 5-year plan, our original request was to come up with national standards. This was totally rejected by the State members. They said we should not request national standards, it was the States' right to set standards and, as a result, we removed that from our goal in the 5-year plan. However, we did identify to EPA that we wanted to have a consensus on how clean is clean, and that we are looking at that.

Chairman GLENN. Mr. Stewart, what responsibility does Justice have in this? We have had EPA and DOE fussing at each other for a long time over what was going to happen here with regard to standards. Does not the Department of Justice have a responsibility to insure that EPA standards are met at DOE facilities?

Mr. STEWART. Yes, we do, in the sense that we would have civil enforcement action against a contractor who was violating those standards.

Chairman GLENN. Can you not take the initiative in that area? Is it your responsibility, or do you have to wait until somebody asks for a criminal investigation of some kind?

Mr. STEWART. No, we have, through the FBI, as well as the EPA criminal investigators, access to information about possible criminal violations.

Chairman GLENN. Is it possible that Mr. Thornburgh could ask Mr. Reilly and Admiral Watkins to sit down and try and iron this thing out, under your initiative? It has not worked very well letting them try and iron out their own difficulties through the years.

Mr. STEWART. Well, as I said before, we get involved when matters get into court. Of course, if there is a deadline on the statute the Congress has passed for these standards—I am not sure in this case whether there is—an action could be brought in court by a citizen to force that, but it is really when it gets down to some sort of court action that we would get involved, so ordinarily, we would not get involved in standard setting.

Chairman GLENN. Ordinarily, EPA and DOE, in trying to work these things out, which they have not been all that good in working out, is not taken up in court. I think that, since we are talking about EPA standards that are supposed to apply, that there could be a role that the Department of Justice could play in ironing this thing out, without it going on for another 3 years. I think that is a long time.

Mr. DUFFY. Mr. Chairman, in regard to that—again, this is one of the problems in I think both agencies, is that people change and problems continue, but as I understood it, the specification for transuranic cleanup was referred to the Committee on Inter-Agency Radiation Research Policy Coordination and they have been looking at it for the last 3 years. It is not that the Department of Energy has been looking at it for the last 3 years, and that has been returned back to EPA.

Mr. GUNTHER. If I may interject, the recommendations that came out of that review by CIRRPC included the recommendation that we incorporate the standard for transuranic contamination into the residual radioactivity project. It would be possible to arrive at an answer for transuranic faster than 3 years, but then that would be ahead of the project and might have to be reexamined when we came out with a final rule for residual radioactivity. CIRRPC recommended that we incorporate those two into a single project and come out with one unified set of standards.

Chairman GLENN. Is not the White House panel you referred to, Mr. Duffy, mainly made up of DOE contractors?

Mr. DUFFY. It possibly could be. I do not know that for a fact, Senator.

Chairman GLENN. I think it is mainly made of DOE contractors.

Well, we are going to have to move along. We have two more panels here. Obviously, we would like to keep going with some of you gentlemen. We may have additional questions to submit to you, so we can have a more complete record than we have. We obviously have several loose ends here this morning, and so we are going to have to move along.

Thank you all very much.

Mr. DUFFY. Thank you.

Mr. HOLMES. Thank you.

Chairman GLENN. The next panel is the Honorable Duane Woodard, Attorney General of the State of Colorado; Maury Walsh, Deputy Director for Technical and Remedial Programs, Ohio Environmental Protection Agency; Roger Stanley, Nuclear and Mixed Waste Program manager, Washington State Department of Ecology; and William D. Tahkeal, Yakima Indians, Yakima, Washington.

If you gentlemen will all take your place, we would appreciate it, and Mr. Woodard, if you would lead off, please.

## TESTIMONY OF DUANE WOODARD, ATTORNEY GENERAL OF THE STATE OF COLORADO

Mr. WOODARD. Thank you, Mr. Chairman.

My name is Duane Woodard, and I am the Attorney General of the State of Colorado. I am pleased to be here this morning and I would like to ask permission of the Chairman and the committee to make my testimony a part of the record.[1]

Chairman GLENN. Without objection, it is so ordered.

Mr. WOODARD. Thank you. I would also like to be able to supplement it at a later point in time, Mr. Chairman.

First, I am pleased to be part of this proceeding today with regard to DOE and other Federal agency compliance at Federal facilities, because in Colorado we have two Federal facilities that have caused us a great deal of concern, a Department of Defense facility at the Rocky Mountain Arsenal, not to be confused with a Department of Energy facility at Rocky Flats, two facilities that are approximately 15 to 20 miles apart, both located directly on the edge of the Denver metropolitan area.

Second, I believe that this proposed 5-year plan the Department of Energy has brought before us presents Congress, the administration, and DOE in particular, the opportunity to change the way in which Federal agencies seek to comply with both State and Federal—and I emphasize Federal just as much as State—State and Federal environmental laws.

I was very pleased that Admiral Watkins, the Secretary of Energy, has pointed out on a number of occasions, with regard to the proposed 5-year plan, that its implementation will lend credibility to the Department of Energy's efforts to show the public that it can, in fact, manage its facilities and operate them in accordance with the standards that are required to insure that the public health, safety and welfare are assured.

He has also described his 5-year plan process as a very difficult process and he is to be commended for allowing the States and the tribes and other interested parties to be a part of this process.

I would like to discuss briefly today what I see as some major issues that are raised by the plan. First, this plan is a departure from past DOE policy and is a breath of fresh air. It stands in marked contrast to the position of other Federal agencies, and Admiral Watkins and his entire staff deserve praise for these efforts.

On the positive side, the plan states DOE's commitment to the goal of cleanup of all its sites within 30 years. The plan also acknowledges a pressing need for DOE to change its culture and learn to accept outside scrutiny and criticism. And I have to report to you, while we have not had all of our comments accepted in their entirety by DOE and its staff with regard to the 5-year plan, we have felt very positive with regard to the atmosphere in which these meetings have been conducted, and the fact that we have been allowed to operate in an advisory capacity.

I also want to emphasize the fact that the plan recognizes that, to insure that environmental concerns are given precedence over production, the DOE internal management structure is going to require reorganization. I think it is important that the Department of Energy look at that and it has acknowledged that problem in writing.

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[1] See p. 125.

The plan also proposes establishment of a single appropriations account for the cleanup, compliance, and waste management activities covered under the plan. That is a positive step.

Finally, the plan acknowledges DOE's obligation—and this is really critical, with regard to several of the States that have been involved in very difficult litigation with both DOE and DOD—Colorado and Ohio, to name two States—the plan acknowledges the Department of Energy's obligation to comply with Federal, State and local environmental requirements.

Even with all of these positives, I must point out that I think this is something that is going to require legislative direction in order to keep this momentum moving forward.

All of this came about almost solely in response to a directive from Secretary Watkins, and this initiative is laudable, but the activities covered in the plan are so broad in scope and of such long duration and represent such a break with past agency practice, that to achieve them is going to require more than the support of a single Secretary or, indeed, the entire administration. It is going to require legislative commitment and I think a legislative mandate.

For example, the plan discusses corrective activities to bring DOE facilities into compliance with environmental requirements. Historically, Federal agencies have been extremely reluctant to comply with environmental regulation, particularly State imposed regulation, and the Department of Energy is no exception. There have been a number of lawsuits going back and forth to determine whether or not there is State jurisdiction or not at some of these facilities.

Colorado, for example, is a RCRA authorized State. The EPA has given the State of Colorado authorization to administer and enforce the RCRA law and rules and regs pursuant thereto, and yet——

Chairman GLENN. What States have those agreements, do you know? Most States I think have those agreements now, do they not? I think we do in Ohio, at least.

Mr. WOODARD. I cannot speak precisely for Ohio, Mr. Chairman, and there is a representative here, but Colorado has recently negotiated an inter-agency agreement with DOE at the Rocky Flats facility. It is not yet signed, but we expect it to be signed. Of course, there is the Hanford agreement in the State of Washington, and I believe there is a Washington official here, as well, so there are——

Chairman GLENN. Do you know, Mr. Walsh? I think that is basically the same setup we have in Ohio. Do you have any idea how many States have that same arrangement?

Mr. WALSH. Are you talking about the agreement between DOE and the States?

Chairman GLENN. RCRA, where the States basically enforce the Federal law.

Mr. WALSH. Oh, RCRA authorization, is that what you are getting at?

Chairman GLENN. Yes.

Mr. **Walsh**. I believe there are only about two States and I cannot name the two that are not, unless they are all authorized now.

Chairman **Glenn**. It is the pattern, instead of the exception, is the point I was making.

Mr. **Walsh**. Yes.

Chairman **Glenn**. Go ahead, Mr. Woodard.

Mr. **Woodard**. Thank you, Mr. Chairman.

This process with regard to negotiating agreements between the State of Colorado and the Department of Energy at the Rocky Flats plant started sometime in 1986, at which time DOE acknowledged the State's regulatory authority over hazardous waste and mixed hazardous and low-level radioactive waste, and that is not to be confused with the IAG, the inter-agency agreement that we have just renegotiated, which has not yet been signed. The latter is much more comprehensive than the 1986 agreement.

But since 1986, the State has issued two unilateral orders citing numerous hazardous waste violations, some of which were repeated violations. This year alone, we have issued four orders, including three consent orders. Between the period of 1986 and 1988, at Rocky Flats, the Department of Energy's own inspectors cited the contractor for some 230 violations.

Nevertheless, we believe that the change in attitude—the change in culture as it referred to by the Department of Energy in the 5-year plan—and the IAG's that have been negotiated with the States of Washington, at Hanford, and in Colorado, at Rocky Flats, show that some of the compliance problems are starting to be addressed by the Department of Energy, and we think that is very positive.

Now, the Department of Energy acknowledges in the 5-year plan that non-compliance with environmental requirements at DOE facilities is pervasive and that this change in culture is necessary. It is easier said than done, and we believe at the State level that it is going to require clear congressional direction, number one; number two, strong independent oversight by both the States, tribes and the U.S. Environmental Protection Agency, and in this regard, I would ask this panel to consider seriously the support of S. 1140, which would strengthen State enforcement of hazardous waste laws at all Federal facilities by clarifying the waiver of sovereign immunity in RCRA.

In Colorado, for example, for example, as we have litigated that issue, we have been successful and a U.S. District Court judge has found in favor of the State of Colorado. Ohio has also been successful, as has Maine. But there are other States that have seen the decisions go the other direction, quite frankly because this issue has not been clarified in law. It leads to some difficulties when it comes time to negotiate any kind of an agreement with a Federal agency at a Federal facility.

With regard to the 30-year goal, I am pleased that Secretary Watkins agreed to commit to a 30-year goal for cleaning up all DOE facilities, and he is to be commended for that. However, as several members of the State-Tribal-Working Group emphasized, in reviewing the 5-year plan, the 30 years is an outside limit for all of

DOE's facilities, and DOE should attempt to clean up its facilities as expeditiously as possible.

We believe that most DOE facilities can be cleaned up in substantially less than 30 years, and it is only the exceptional facility, perhaps only the Hanford Reservation and Savannah River that will require the full 30 years.

The last comment I would like to make—my time is starting to expire, and I will be happy to answer any questions, Mr. Chairman—is that the 5-year plan acknowledges the need for State, tribal and public participation in the planning and implementation of this and future 5-year plans, but it provides virtually no detail on how that participation should occur.

We believe that outside review of the plans, assumptions and choices is absolutely critical. One example that I would like to raise deals with the spending levels, because much of this, of course, is going to be driven by whether or not there is an adequate appropriation level there to keep this momentum going.

There are documents known as "activity data sheets" that the Department of Energy prepares, and these are based on DOE's perceptions of what actions are required over the coming year to comply with regulations or proceed with the cleanup. If these data sheets are prepared without input from State or U.S. EPA regulators, they may be inaccurate and lead to inaccurate cost estimates in the 5-year plan. Without going into any detail, we simply cannot imagine how the Department of Energy can accurately analyze and project what cleanup costs are going to be, without State and U.S. EPA involvement in this one particular phase dealing with the preparation of the activity data sheets. And I do not want to get down to dotting i's and crossing t's, that is not the purpose here today, but it is very important that there be outside participation by the States and the U.S. EPA, and I think that the 5-year plan is a step in the right direction, and I would like to see some legislation mandating some of these roles for outside participation to become a part of this whole process in law, perhaps through the guise of an advisory council.

Thank you, Mr. Chairman.

Chairman **Glenn**. Thank you.

Mr. Walsh, we are glad to welcome you this morning. Mr. Walsh is Deputy Director for Technical and Remedial Programs of the Ohio EPA.

## TESTIMONY OF MAURY WALSH, DEPUTY DIRECTOR FOR TECHNICAL AND REMEDIAL PROGRAMS, OHIO ENVIRONMENTAL PROTECTION AGENCY

Mr. **Walsh**. Thank you, Mr. Chairman.

I appreciate this opportunity this morning to speak to you on the Department of Energy's 5-year plan.

In my role as Deputy Director at the Ohio EPA, I have responsibility for the hazardous waste and the Superfund programs in Ohio. In that capacity, I interact with the DOE facilities in Ohio. I am also Ohio's representative on the State and Tribal Government Work Group, which reviewed and commented on the early drafts of the 5-year plan. While I do not presume to speak for any of the other States or the tribes, I can assure you that they express many of the same comments and concerns which I will express to you today.

The 5-year plan is a welcome change in the approach DOE has taken in the past to environmental cleanup and compliance. Secretary Watkins and the Department of Energy staff that have prepared it are to be commended. The final document is a major improvement over the first draft, reflecting what I perceive to be a genuine attempt by DOE to incorporate many of the comments and criticisms of the review group. The early version did not have a 30-year cleanup goal, which it does now, but, rather, it left it open-ended, sort of a rolling 5-year plan, with no termination in site. It also had a repeating theme of trying to get uniform national standards for cleanup and compliance which would usurp States' rights to set more stringent standards. That call for uniform national standards has been toned down significantly, though, though it still seems to be hinted at occasionally.

However, while containing many positive points, such as the acknowledgement of the need for DOE to change its culture, acknowledgement of DOE's obligation to comply with Federal, State and local environmental regulations, a call for reorganization and a change in appropriations procedures to insure funding for compliance, waste management and cleanup activities, there are still serious shortcoming in the 5-year plan. I would like to summarize about six of those main reservations we have about the plan.

While it is stated repeatedly that the DOE is going to "change its culture" in dealing with environmental concerns, there is no description of how that is to be done. This is the critical key to the success of the plan. With it missing, it is virtually impossible to assess whether or not the 5-year plan can work. The proposed management changes described on page 22 are so skeletal that no judgment can be made about them.

Before working at Ohio EPA, I worked at Battelle Memorial Institute, in Columbus. Much of my experience there was working with the U.S. Department of Energy Environmental Survey. In that capacity, I was able to observe first-hand some of the interactions between DOE site personnel and headquarters staff.

Now, like any other large organization, there is a fair amount of cynicism, suspicion and poor communication between headquarters and field staff. At this point, I have to wonder how this change in culture is going to be effectively passed down from Washington to all levels of staff, since that is what is going to be required for real environmental compliance and waste management to succeed. I do not see an answer to that question in the 5-year plan.

Second, in the prioritization scheme presented on pages 14, 40, 129 and mentioned in a number of other places throughout the plan, Priority 3 includes activities to comply with environmental regulations that were not covered under Priority 1 and 2. And while I understand that DOE wants to prioritize activities, in case funds are limited, regulatory compliance has to be met independent of funding. Complying with laws and regulations must be included in Priority 1, it cannot be anywhere else.

On page 38 and 40, there are now some sentences which seem to say that all regulatory requirements will be met, independent of the level of priority. Well, that is pretty confusing. If that is the case, it would be a lot more simple to have them in different categories of something not called priorities, which seems to imply that something will be put off until later.

While the 30-year cleanup goal is commendable, as a goal its foundation is nothing more than the support of the current Secretary. DOE must explain how it will make the 30-year cleanup a commitment, including pursuing legislation to solidify that commitment, if necessary. This is important to ensure that environmental cleanup and compliance efforts are not delayed because of production responsibilities. They really cannot be put on the back burner, as they have been in the past.

It is stated several places in the report that there will be meaningful public, local government and tribal participation in the development of the Operations Office, implementation plans and future 5-year plans. However, such meaningful participation is not really explained in any detail. Since the activity data sheets are the core documents which drive the formulation of the 5-year plan, there should be more detail on how the local regulators and State regulators are brought into the activity data sheet preparation phase.

There is no clear commitment to fund States and tribes for oversight costs, even though the review group mentioned that a number of times that that should be in there. There is now merely a statement on page 29 that DOE "foresees no change" in its practice of negotiating reimbursements to States for verifiable costs. I mean that is fine if it is maintained, but we have preferred to see a stronger commitment that that funding would be made available.

There are no discussions of contingency plans if WIPP or other mixed waste storage and treatment facilities fail to open or are significantly delayed. In fact, the plan does not seem to entertain any scenario other than that WIPP will open soon. Many DOE facilities throughout the country are hitting a critical stage in hazardous waste storage capacity, with waste inventories surpassing RCRA authorized limits. Much of this waste is mixed waste.

DOE has to face the alternative that WIPP may not open. What options are there to solve the trans-uranic waste disposal problem and other mixed waste disposal problems? We do not see too many explanations of that here.

In conclusion, I would like to emphasize that we realize the 5-year plan is addressing a monumental task and that it was put together in a very short time. However, we in Ohio also realize that DOE faces such a monumental task now because of decades of mismanagement and neglect.

We hope that this plan reflects a new approach, but we must still reserve some skepticism.

Thank you very much.

Chairman GLENN. Thank you very much.

Mr. Roger Stanley, Nuclear and Mixed Waste Program Management, Washington State Department of Ecology.

Mr. Stanley?

## TESTIMONY OF ROGER STANLEY, NUCLEAR AND MIXED WASTE PROGRAM MANAGER, WASHINGTON STATE DEPARTMENT OF ECOLOGY

Mr. STANLEY. Thank you, Mr. Chairman. I would like to summarize my written testimony which I have also submitted.[1]

Chairman GLENN. Your entire statement will be included in the record.

Mr. STANLEY. As you noted, I am with the Washington State Department of Ecology, where I serve as Program manager for the Nuclear and Mixed Waste Program. As such, my responsibilities include hazardous waste management at the Department of Energy's Hanford site, in Eastern Washington.

I began my involvement in U.S. DOE issues in late 1983, shortly before the agency recognized that the Resource Conservation and Recovery Act was applicable to hazardous wastes generated at its sites nationwide. We have subsequently gained broad recognition that mixed wastes, those both radioactive and chemically hazardous, are among those that are regulated.

Subsequent to this recognition, over basically the past year and a half, we have focused on getting compliance and cleanup under way and have done so through negotiated agreements between the States, the U.S. EPA and the U.S. DOE. Negotiations at Hanford began in February of 1988, and continued to finalization of the Hanford Federal Facility Agreement and Consent Order on May 15, 1989. This agreement now stands as both an administrative order issued under State law and as a Federal facility agreement under section 120 of the Superfund statute.

As one of the principal negotiators of this agreement, I can assure you that this process was no fun. It was a seemingly endless series of very difficult sessions, under which the State, the U.S. DOE and the U.S. EPA dealt with issues including a long list of actions needed at Hanford, both for compliance and cleanup, schedules for those actions, taking into consideration the fact that there are going to be technologies developed at a number of points, enforceability under Federal and State laws, dispute resolution processes, and the roles and relationships between the regulators.

The agreement that we eventually reached represents a long sought bond between the citizens of the Pacific Northwest and the Federal Government. We are only in the first year of this agreement now, but we feel that we are beginning to make real progress, both with DOE relations and with actual implementation of the agreement.

Secretary Watkins' efforts since finalization of the Hanford agreement have also been encouraging and are to be applauded. The Secretary has not only affirmed that Hanford agreement commitments will be met, but has initiated a broad spectrum of cleanup initiatives nationally, which include his 5-year Plan, his 10-point initiative, his research, development and technology plan, and the now-developing national prioritization system.

We in Washington have been particularly encouraged by U.S. DOE's newly established policy of obtaining input early on from

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[1] See p. 135.

U.S. EPA, the States and Indian nation representatives. We have been able to review and comment on the 5-year plan as it has developed and have found U.S. DOE's level of responsiveness to be generally good.

We are continuing to work with the DOE as its plans at the field office level take shape and as the national prioritization system is developed.

However, Mr. Chairman, we are also concerned that unless the Secretary's initiatives are adhered to, our hard-fought progress could be lost. U.S. DOE, and contractor actions, must be consistent with these new policies. If they are not, the credibility of the Secretary and of our efforts together will be destroyed.

The remainder of my testimony focuses on areas of particular concern to the State of Washington today and on a Hanford specific case in point, namely, the potential for explosive hazard within Hanford's single-shell tanks.

As you may know, Hanford's tanks—there are 149 of them each one holding roughly a million gallons of waste—presently contain in total some 36 million gallons of both radioactive and extremely hazardous waste, from a chemical standpoint. The tanks are gradually failing. At last count, there were somewhat over 66 of them where we have documented leaks. U.S. DOE's present estimates have recently been revised upwards, so that they now range from 670,000 gallons to 900,000 gallons, which have been lost to area soils.

The Hanford agreement lays out an aggressive, realistic, schedule for cleaning these tanks up no later than June of 2018. That cleanup process lays out a step-by-step process, moving from characterization of the waste to the development of waste retrieval technologies, and to eventual closure of the tank farm areas, after completion of the Hanford vitrification plant.

Our ability to successfully complete this very large task depends in large part on our ability to work openly with U.S. DOE and its contractors. Unfortunately, the need to complete these activities has increased dramatically with recent revelations regarding the potential for explosive conditions within the single-shell tanks. A 1984 report describing this potential was not released by U.S. DOE to the States or to the public until this fall. This failure to address this potential risk more promptly raises understandable public safety concerns and damages the credibility of the U.S. DOE at a critical time. It also speaks the importance of Secretary Watkins' policy to deal with issues openly and candidly.

In response, Governor Gardner has asked that the Washington Departments of Ecology and Health review available data regarding the potential for explosive hazard in the single-shell tanks. These studies are just now under way.

Our investigative efforts are focusing on (a) the ferrocyanide content within the single-shell tanks, (b) the presence of other potentially reactive materials, and (c) tank temperatures and temperature monitoring. These elements follow the findings of U.S. DOE's 1984 report, specifically that the potential for an explosion of a magnitude equivalent to 36 tons of TNT exists, if ferrocyanides are subjected to high temperatures in the presence of nitrate salts.

DOE has thus far assured us that such an event is not credible and that temperatures are far below levels justifying alarm. At this early stage in our investigation, we have no information to the contrary. However, it does appear to us that DOE has drawn its early conclusions on relatively scant data.

For example, of the 22 tanks known to contain ferrocyanide, only four have been routinely monitored for temperature. At the other 18 tanks, thermocouples are not operable. Knowledge of tank waste concentrations and the degree of stratification of the waste within those tanks is also virtually non-existent. We are at the very, front-end of characterizing the wastes in these tanks.

In short, it is too early to draw a technical conclusion on the potential for the explosive hazard in the single-shell tanks. Our own investigation at the State agency level is going to take place over the coming roughly 3 months, and DOE has some of its own studies that are still in progress. However, I cannot stress enough how important it is that U.S. DOE and contractor pledges of complete openness are actually carried out. If they are not, the Secretary's new policies are damaged.

We feel that DOE has come a long way this past year, both here in Washington, D.C. and at Hanford. I know that Mike Lawrence and his people in Richland intend to deliver on the Hanford agreement, and we think that they will. However, we also know that these first few years are going to be a bumpy ride at times. We have a lot of very difficult issues to deal with and an extremely large task to get under way.

The second issue that I would like to comment on briefly is U.S. DOE's 5-year plan and, more specifically, its developing national prioritization system. As I have noted, we have been encouraged by the opportunity to comment early on as the 5-year plan took shape. By and large, we have found DOE's responsiveness to our comments good.

Locally, the Hanford 5-year plan mirrors those commitments that DOE has made to the U.S. EPA and the State within the triparty agreement. Most recently, we have begun working with DOE on a national prioritization system, to aid us in budgeting and scheduling activities which need to occur over the next 30 years.

We support the development of such a system as long as it is a mechanism which upholds commitments within legally binding agreements and as long as it adheres to a firm commitment to complete cleanup within 30 years. It is through these agreements and firm commitments that we can begin to gain the public's confidence and offer some certainty that cleanup will actually take place.

In summation, I submit that, in order to successfully move forward toward efficient cleanup, the following actions need to be undertaken:

First, U.S. DOE needs to follow through on the Secretary's recognized need for cultural change within the agency;

Second, U.S. DOE should abandon attitudes which tolerate continued secrecy and should force new policies which insure that all pertinent information is shared openly, both the good and the bad;

Third, U.S. DOE and its contractors must establish and demonstrate through their actions that environmental concerns take priority over production;

Fourth, U.S. DOE's recognition of and full commitment to meet the terms of cleanup agreements should be adhered to, U.S. DOE should take steps to insure that its 5-year plans do not mitigate the terms or intent of these negotiated settlements;

Fifth, U.S. DOE's stated goal of the completion of compliance and cleanup at its facilities within 30 years should be upgraded to a firm commitment;

Sixth, U.S. DOE should continue to work with U.S. EPA, the States and affected Indian nations in developing yearly budget requests for funds necessary to meet the agreement conditions;

Seventh, U.S. DOE should support passage of legislation which underscores the commitment of the United States to complete cleanup within 30 years and which establishes a stable, long-term funding mechanism for these efforts; and

Eighth, the States must maintain effective and credible independent oversight authority over U.S. DOE operations.

Mr. Chairman, this concludes my formal testimony. I would like to thank you for the opportunity to join you and would be happy to field any questions.

Chairman GLENN. Thank you, Mr. Stanley.

The next witness, Mr. William Don Tahkeal, Yakima Indians, Yakima, Washington.

Mr. Tahkeal?

## TESTIMONY OF WILLIAM D. TAHKEAL, YAKIMA INDIAN NATION, YAKIMA, WA

Mr. TAHKEAL. Thank you, Mr. Chairman.

It feels good to be on the land of the Great White Father, because at the initial interaction between the Yakima Indian Nation and the United States of America, he sent his delegate to negotiate a treaty. It was approved by the Senate and it has been upheld by the highest court of the land from time to time,

I am here today to submit testimony, Mr. Chairman, and I am thankful I have heard you speak several times previously throughout the country, stating that you were going to include affected Indians and Indian tribes. I thank you for honoring your word and allowing me to submit some testimony this day.

Mr. Honorable Chairman, my name is William "Don" Tahkeal. I represent the Yakima Indian Nation as a member of the Yakima Tribal Council, and as a member of the Tribal Council, I am also Chairman of the Yakima Radioactive and Hazardous Waste Committee.

I thank you for the opportunity to offer the Yakima Indian Nation's perspective concerning the Department of Energy activities which affect the people of my tribe.

When the treaty was negotiated between my people and the United States Government, my ancestors had the great foresight to make sure that all future generations would have perpetual rights to resources outside of our reservation boundaries. These resources are guaranteed in the treaty as possessory and usage rights.

My people today depend on these resources, which include fish, wildlife, roots and berries, medicines and herbs. In turn, these resources require a healthy environment in order to flourish and reproduce, and to sustain the people. The Hanford Nuclear Reservation is located on Yakima ceded land, where my tribe still retains possessory and usage rights, and where there is great concern over the health of the environment.

When the government began producing nuclear materials at the Hanford site, little was known by the Yakima Nation regarding effects of this activity on the environment. My people have served in all of the wars of the United States, I, II, Korea, and recently Vietnam, and it was believed that when World War II was over, that my people could use the land at Hanford once again. This land is important, because it contains the last free-flowing stretch of the Columbia River and because it supports fish, deer, elk and other wildlife, and because it holds numerous cultural and religious sites dating back to our ancestors, which has been proven by a science called archeology of 25,000 years ago.

The Yakima Nation has contributed to the language of the Nuclear Waste Policy Act of 1982, because it was recognized that nuclear waste activities at Hanford affected the environment and people on and off the Yakima Reservation. The Yakima Nation was designated as an affected Indian tribe and was involved extensively in protection of treaty rights and oversight of DOE activities, until the Act was amended in December of 1987. It is ironic that oversight funding ended when it did, because by this time the tribe had become aware that the hazards posed by nuclear waste already at Hanford were far greater than those posed by a potential deep geologic repository.

In May of this year, the Department of Energy designated the Yakima Nation as an "affected Indian tribe." This is a positive step, since Yakima treaty rights are substantially affected by DOE waste management and environmental restoration activities. The Yakima Nation participated in the formulation of the Secretary's first 5-year plan, from June to October of this year, and received a commitment that DOE will recognize tribal sovereignty and treaty rights related to tribal and ceded lands.

When the recently signed three-party agreement was negotiated between DOE, the Environmental Protection Agency, and the State of Washington to deal with Hanford cleanup plans, the tribe was not allowed to participate in the negotiations. Such exclusion of the tribe is in direct contradiction of treaty rights and trust responsibility of Federal agencies.

This morning, I listened to some of the children as well as some of the step-children of the Great White Father, the step-children being the agencies, and now that the Department of Energy has committed to formally recognize tribal sovereignty and treaty rights related to tribal and ceded lands in the 5-year plan, the Yakima Nation expects the Environmental Protection Agency to follow through on its stated tribal policy and to make the same commitment.

As an affected Indian tribe, DOE has requested and the Yakima Nation has committed to full participation in DOE's 5-year plan activities, which includes the national 5-year plan development, the national prioritization system, the research, development, demonstrating, testing and evaluation program, and the site-specific implementation plan for Hanford. Such participation will require a major, long-term commitment by the tribe.

On October 17, the Department agreed to enter into negotiations with the Yakima Nation regarding funding for oversight of the 5-year plan activities. Since our tribe has already committed limited resources to oversight, we are hopeful that a funding agreement can be resolved in the near future. Full participation in the DOE program will not be possible until such funds are available, and I today ask the Committee to help insure that such funds are available by at least January of 1990. You may please refer to our proposal which was submitted to DOE as Attachment I of my testimony.[1]

My people are looking to the future and are hopeful of seeing the day when the environment is returned to its natural state and protected from further abuses. However, it is vital to remember the past as well, and protecting the future demands that we examine the past.

I would like to address also an issue which has its roots in the past, but demands attention now. The early years of operation at Hanford and extending through to the 1960's, large amounts of radiation were released off-site. Although millions of curies of radioactivity were carried by the wind and water to the surrounding land, nobody knows how much radiation people were exposed to, including the people of my tribe. Currently, a project known as the Hanford Environmental Dose Reconstruction Project is trying to answer that question.

The Yakima Nation was instrumental in realizing the need for this study and seeing that it became a reality. The Yakima Reservation is only 13 miles from Hanford, so my people on the reservation and on the ceded land were affected by these radiation releases. When the Department of Energy agreed to fund the study, the Yakima Tribe pushed for independent oversight.

Although the Dose Reconstruction Project started over 2 years ago and several million dollars have been spent, there has been no substantial participation by the Yakima Tribe. The people of the Yakima Nation are recognized as part of a special population group, with distinct radiation uptake pathways due to the lifestyle, migration and food consumption patterns. The work plan for the project calls for input of tribal data for Phase I work. And though Phase I is now nearly complete, the Technical Steering Panel, which directs the project, has shown limited interest in assuring that tribal data is included in the project in a timely manner.

Mr. Chairman, I believe that this problem is the result of a lack of understanding of the status of our tribe as a sovereign government. The Yakima Nation is viewed primarily as a data source by the study contractor, Battelle Laboratories and by the technical oversight committee.

In order for the results of this study to have any meaning to members of my tribe, the Yakima Nation must have access to project records and to have the ability to participate in project meetings and review materials on a technical basis. Initial funding necessary to accomplish these tasks was requested in a proposal submitted to the Technical Steering Panel on August 22, 1988, but was rejected.

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[1] May be found in the Committee files.

Since then, the Yakima Nation efforts to gain proper governmental participation in the study have been met with ambiguous or negative responses from the Technical Steering Panel. A record of correspondence concerning this matter is contained in Attachment II for your benefit. I request, Mr. Chairman, that you assist the tribe in assuring that full participation is guaranteed in this project which concerns the people of my tribe.

I thank you for the opportunity to present the concerns of the Yakima Nation.

Chairman GLENN. Thank you, Mr. Tahkeal, very much.

I have here a map of the area that was ceded and where the reservation is here that I believe was submitted as part of your testimony.[1]

Mr. TAHKEAL. Yes.

Chairman GLENN. The area that normally would be considered down-wind of Hanford when those released occurred would normally be blowing away from the reservation. Do you have any indication, as close as you are to the Hanford site, that the wind at any time blew right over the reservation?

Mr. TAHKEAL. Yes, Mr. Chairman, we had a fine example, I believe it was in 1980, May 30, that Saint Helens blew her top and supposed experts of the wind direction, it seemed that all their theories went afoul at that time, and the State of Washington at that particular time, the wind did blow the ash from Saint Helens in diametric direction of the proposed normal wind directions, and so the tribe has been holding onto that. At that time, we did have evidence, the whole wide world, the wind direction.

Chairman GLENN. I am told there were measurements made on that, a 1949 release, some of it did actually get over to the reservation directly.

What indication have you had from EPA that they will or will not formally "recognize" tribal sovereignty and treaty rights related to tribal and ceded lands? Has EPA conceded that?

Mr. TAHKEAL. Mr. Chairman, within the last 24-month period, EPA has developed a national Indian policy. Contained within that national Indian policy is a government-to-government relationship. I myself have sat on nine working subcommittees for EPA regarding clean water, and because of that process, Indian tribes under the amendments to the Clean Water Act are now included to be within the guidelines of EPA as they develop their policy, and the EPA Administrator, previously as well as the current Administrator, say that they are going to carry through with the direct working relationship with the Indian tribes.

Chairman GLENN. To the rest of you here this morning, some of the testimony Mr. Duffy gave this morning, we have always known that some of the high-level waste and so on would not be able to be moved, that some of the places would be memorialized, in effect, and it would be kept there, whatever the high-level waste was. But in his statement this morning, he says that "DOE's highest waste technology priority, one which poses tremendous opportunity and challenge for a national laboratories, universities industry is how to treat this contamination without moving it."

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[1] May be found in the Committee files.

What is going to be necessary at Rocky Flats, Mr. Woodard? Do you have any comment on that?

Mr. WOODARD. Mr. Chairman, that is the first time I have heard of such a statement from the Department of Energy, that there might be emplacement, if you will, of the hazardous waste materials at Rocky Flats. That simply would not work at Rocky Flats, because of the area and the population that surrounds it. There are approximately 2 million people that border the facility.

Right now, those materials are gathering in boxcars on the rail siding. The Governor has tried to work extensively with DOE and the administration and other Governors to see if there would not be a safety valve, so to speak, until the waste isolation pilot plant in New Mexico comes on-line.

The Rocky Flats facility is simply not a feasible site for storage of those waste materials. They must be moved, and that is why we believe it is so important that the 5-year plan make provision for some alternative, if the waste isolation pilot plant in New Mexico does not come on line. That is one of the failings of the proposed 5-year plan.

Chairman GLENN. Well, one of your problems at Rocky Flats or the major problem is not necessarily what is going to be there in perpetuity forever, if there are such things, but just your operating wastes that accumulate just from operation of the plant right now and have to be disposed of.

Mr. WOODARD. That is correct as well.

Chairman GLENN. And that is what is backing up, as I understand it out there, and that you could not take up to Governor Andrus' State and a few other places. So I do not know what the answer is to that. I think what he was referring to this morning was more on cleanup, than on operating waste.

Mr. WOODARD. Well, whether it is cleanup or the operating waste, the storage of either at the Rocky Flats facility would simply not be feasible. Again, the 5-year plan certainly has one glaring deficiency and that is the fact that it does not take up the alternative to what happens if the WIPP site does not come onboard.

Chairman GLENN. Mr. Walsh, the Federal facility compliance agreement that was worked out between the State of Ohio and DOE by Tony Celebrezze at Fernald may well prove to be a model for other agreements around the country. I know you have had people in from other States to talk to you about that and to get information on it.

However, the recently released tiger team assessment reports that Fernald is in violation of several major environmental laws, including RCRA, the Clean Water Act, and NEPA. Can you give us some idea what you know about these violations and whether or not Ohio plans to take action to resolve them?

Mr. WALSH. Well, Mr. Chairman, we were also very interested in the tiger team results, particularly when they cited the fact that they felt that the facility was not in compliance with the agreement with the State of Ohio. When we looked into it and found what some of the issues were, particularly concerning RCRA noncompliance, they were not issues of enough of a significant problem to probably cause us to take action.

In particular, the one that came up where they were not in compliance was failure to test some of the drums that they had there in RCRA storage. They had 3,800 drums which they have to characterize to test. Under RCRA, anyone who generates a waste is required to test to determine whether or not it is hazardous. They have fallen behind in the schedule of the testing, it is not that they have not been doing it, but they have not got it done quickly enough, and that has been mostly in part because the laboratory capacity has been taken up so much by the RIFS, the characterization studies being done at the rest of the site.

So, you have got RCRA requirements competing at this site with CERCLA-type requirements. Consequently, we did not feel that, even though it may be technically a violation, was not a serious enough one for us to probably take any action, although we are trying to prod them along and to getting further laboratory capacity as they can, but nationally that is a problem, enough laboratory capacity.

Chairman GLENN. How about this treating contamination on-site at Fernald, do you have any thoughts on that?

Mr. WALSH. Well, there are a couple of questions I would ask about that statement, what does he mean by treatment. Some treatments can, in effect, render things so immobile or non-hazardous that there is not a problem. Other times, they may be referring to just some sort of containment, creating a cell and it is treated on-site. I am not sure what Mr. Duffy meant by that.

The reality is that at all of the sites throughout the country, where there is some serious contamination, there is a point of diminishing returns on what you can clean up. There may be some instances where some materials have to remain on-site. We will push to have as much taken off as possible, but we are also realistic enough to realize that there is a point where it does not make sense to dig up half the county and haul it to Nevada or New Mexico.

Chairman GLENN. Mr. Stanley, Hanford put together its so-called "visions statement" in September, meant to parallel initiatives from DOE headquarters. The Hanford statement was supposed to reflect and engender a changed attitude toward openness in the discussion of past mistakes. In light of that statement, how openly was the explosive agent issue discussed with the State of Washington? Was the problem acknowledged by DOE in October, after the visions statement publication?

Mr. STANLEY. Mr. Chairman, the 1984 Battelle report that documented the potential for explosive conditions at the single-shell tanks was not received by the State until late August. We actually requested it, I believe, in April, by letter. U.S. DOE's visions statement basically built on the Secretary's new policies of openness and the realization that at the same time they had knowledge of the potential for explosive hazards at the single-shell tanks certainly damaged our working relationship with them. But at the same time, I know that DOE recognizes that that was a serious mistake on their part, and hopefully we are not going to wind up with further instances of a similar nature.

Chairman **Glenn**. We went through our own bases on that one back here. We released that report about this very issue last November, and DOE's response was that we were wrong. You may have followed that in the papers, about how this had not been the case, that all the things that we had said had been taken care of years ago, been answered years ago.

Then we had a whole second wave of people who said no, that rebutted the rebutters, and so we were vindicated in what we had put out on that issue. We thought it was important to know what was going on out there, not just only for historical records, but so that if there is a danger there it can be dealt with now, while we are getting ready to do this cleanup, and I frankly do not know how you go about cleaning up those tanks. I do not think anybody else has a very good handle on it right now, either.

We thought the first thing to do was to make sure that at least the situation was known, and so we went through the criticism and counter-criticism and were finally vindicated on what we had stated in the original release. So, one of the first things is just to try and get the information we need in these areas.

Gentlemen, thank you. There are lots of other questions here, but we do have to move on. We have one more panel here and it is 12 o'clock and we have our Tuesday caucuses coming up very shortly.

Thank you all. I hope you will respond to additional questions.

Our last panel is Mr. Dan W. Reicher, Senior Staff Attorney, Natural Resources Defense Council, accompanied by James D. Werner, Project Engineer.

Mr. Reicher, welcome to the hearing this morning and we look forward to your testimony.

## TESTIMONY OF DAN W. REICHER, SENIOR STAFF COUNSEL, NATURAL RESOURCES DEFENSE COUNCIL, ACCOMPANIED BY JAMES D. WERNER, PROJECT ENGINEER [1]

Mr. **Reicher**. Thank you, Mr. Chairman.

I am Dan Reicher, with the Natural Resources Defense Council. Prior to joining NRDC in 1985, I was an Assistant Attorney General for Environmental Protection in Massachusetts, a staff member of the President's Commission on the Accident at Three Mile Island, and a legal assistant in the Hazardous Waste Section of the U.S. Department of Justice.

Appearing with me today is Jim Werner. Jim is a project engineer with NRDC, and before coming to our organization earlier this year, he was a senior environmental engineer at ICF Technology, Inc., which is a DOE contractor. At ICF, he served as a consultant to DOE, performing hazardous waste field investigations at various facilities around the country. Jim has also provided environmental consulting services to EPA, the Congressional Office of Technology Assessment, and a variety of private corporations.

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[1] See p. 145 for the prepared statement of Mr. Werner and Mr. Reicher.

We are pleased to have the opportunity to present our views on the Department of Energy's 5-Year Plan. Mr. Chairman, we believe that the 5-year plan generally represents some progress toward a more environmentally responsible Energy Department, but it is very important to remember that the fundamental problems in the Department have really yet to be corrected. The culture in the Department that led to today's massive problems will take a long time to change. Virtually all of the cleanup still remains to be carried out, and there are very serious questions about whether the Energy Department can perform the cleanup in an efficient and effective manner.

The Department still views itself as self-regulating with regard to many radioactive wastes and occupational health and safety problems. Many Energy Department facilities have not yet fully accepted the authority of outside regulatory agencies. In sum, the Department of Energy has taken a few small steps in a difficult and expensive process, and the overall success of this effort will not be known for many years.

As the first environmental initiative completed by the Department's new team, the 5-year plan deserves close attention as a signal of what we can expect.

I would like to ask Jim to discuss some of our concerns about the plan. But before doing that, Mr. Chairman, I would like to just take a minute to respond to Mr. Stewart's comments today about the unitary executive principle, a principle which is, in many ways, preventing EPA from enforcing Federal environmental laws against the DOE.

We believe that the Justice Department is hiding behind this theory to avoid enforcing critical Federal environmental laws and, as a result, EPA's hands are tied. As things stand now, EPA can neither issue a unilateral administrative order nor file suit against the Department of Energy for an environmental law violation.

We disagree with the Justice Department's position on the unitary executive. We do not think that the Department's analysis is accurate. I would recommend to you a memorandum prepared by the American Law Division of the Congressional Research Service, which concludes the exact opposite of what the Justice Department is maintaining about the unitary executive principle.

But if the Justice Department is going to maintain this position, we need to do two things: First, Congress needs to clarify State authority to enforce these laws, in lieu of EPA's enforcement, including the authority to issue fines. Second, I think it is incumbent upon the Justice Department to take a more active role in bringing EPA and DOE together to resolve this problem. If we do not, I think we are in for a difficult situation and we may not see the sort of enforcement that we really need.

With that, I will let Jim discuss some of our concerns with the 5-year plan.

Mr. **Werner**. Good morning, Mr. Chairman.

When the public and the media first reviewed the 5-year plan, it appeared initially that DOE was committing to a substantial increase in environmental spending. But, when we analyzed the plan more closely, what we discovered was that the apparent increase in environmental spending is, for the most part, the result of a new accounting procedure.

You see, at a typical DOE facility, environmentally related spending is often spread among a number of different accounts, including materials production and something called "general plant projects." But, in the 5-year plan, there is a massive consolidation of all projects that are arguably environmentally related into environmental budget accounts. This consolidation can most easily be seen in the fiscal year 1989 budget that has just been completed. It is shown in the chart on page 11, in the written testimony.

The environmental restoration budget for the defense program facilities in fiscal year 1989 was approximately $160 million, but the 5-year plan listed the fiscal year 1989 environmental restoration spending for defense programs at $284 million. The difference between these [illegible] figures is the amount of funding for ongoing projects that was shifted into the environmental accounts.

For example, at the Mound Plant in Ohio, more than half of the $11 million in environmental restoration funding listed in the 5-year plan for fiscal year 1989 was actually shifted from other budget categories. It is important to stress that this is not necessarily new spending we are talking about. It is merely a new accounting of ongoing projects that were being funded from other budget categories. This is not necessarily a bad thing. In fact, NRDC recommended exactly this type of budget consolidation in testimony before the House Budget Committee earlier this year, because it was virtually impossible to track DOE environmental activities, given the way spending was spread out among various budget categories.

However, we still have significant concerns about the way DOE is going about this consolidation. First, DOE failed to acknowledge this consolidation at all in the 5-year plan, and, instead, left many people with the mistaken impression that the Department was committing to vast new spending for environmental activities. This is simply not the case.

Chairman GLENN. If I might interrupt, how about on a new budget, Mr. Duffy is saying they are going to propose about $2.8 to 3.3 billion; this was his testimony this morning, about the new budget. As I understand it, that will not be transferred money, that will be new money devoted strictly to cleanup. Is that your understanding of it also?

Mr. WERNER. I have not seen his numbers, Mr. Chairman. I would be very interested in reviewing that.

Chairman GLENN. Mr. Duffy testified that is what they are going to ask for in the new budget in the coming year just for cleanup, as I understood it.

Mr. WERNER. Well, that is something that are actually relatively easy to check. In the appendices to the 5-year plan, there are actual computer printouts of cross-cuts, showing where the money was transferred from.

Chairman GLENN. Well, if they do that, that will be a very decided increases over anything we have had in the past.

Mr. WERNER. That will be interesting to look at, you are right.

Our second concern about this recategorization is that some of the projects shifted to environmental budget categories may not be legitimate environmental projects.

Third, to the extent that legitimate environmental projects are recategorized from weapons materials production accounts, there should be a decrease in the materials production accounts equal to the amount shifted. For example, if environmental projects funded at $100 million are transferred out of the materials production budget, then that budget should decrease by that $100 million. Any increase in the materials production budget should occur only to meet legitimate national security needs.

The second issue we would like to comment on regarding the Department's cleanup plan is the proposed National Priority System. As you said earlier today, Mr. Chairman, the 5-year plan is only as good as its implementation. Establishing cleanup priorities will be one of the most important parts of implementing the cleanup plan. The 5-year plan, however, fails to identify an adequate prioritization system.

We have attempted to graph here the funding distribution that shows the allocation and the implicit priorities set in the 5-year plan. This shows the distribution, in percentage terms, of the funding proposed by the 5-year plan across the 7 years of the plan. What I think we see here is that the prioritization system that they set out is not actually what is driving the funding. What actually seems to be driving the allocation of funds is not the explicit prioritization system that they have laid out, but an implicit prioritization system. Two sites, Hanford and Fernald, which have State cleanup agreements, are getting the lion's share of the funding. States like Tennessee with Y-12, South Carolina with Savannah River and Ohio with Mound, which do not have similar cleanup agreement, get a smaller proportion of funding.

What is needed is an adequate priority system that considers these and other factors. We are concerned about the way DOE is now putting such a system together. For now, DOE has established an interim system which has a number of flaws. For example, DOE's interim system places ongoing activities ahead of meeting legal requirements. Now DOE is engaged in developing a new priority system, but this effort seems to be avoiding a fundamental question: Should DOE be in the business of developing its own priority system?

We believe that, as a start, DOE should stop using the prioritization model developed previously. As we testified earlier this year, this model is fatally flawed and should not be used for establishing DOE's cleanup priorities. Furthermore, the Department should work with EPA and other Federal agencies to develop a system that establishes a consistent way of setting cleanup priorities across the Federal Government. Unfortunately, this is not happening. In fact, DOE has set a schedule for itself to develop the prioritization system by April of next year.

We agree with the National Research Council Board on Radioactive Waste Management, which commented: "The plan does not recognize how much time it will take to develop a system for setting priorities. To do it right, with public participation, will take more than twice that long. DOE has set itself a deadline which the Board considers premature and urges DOE to abandon."

We urge Congress to direct DOE to halt the use of the existing prioritization model and to work with EPA and other Federal agencies in developing a new prioritization system that establishes some consistency in the way Federal agencies set cleanup priorities.

The third element of the 5-year plan that we would like to address is the proposed reorganization of the Department's environmental activities. The 5-year plan proposes a new senior manager, as discussed this morning, to carry out this plan. Recently, DOE specifically proposed to create a new Assistant Secretary for Environmental Restoration and Waste Management, and proposed that Leo Duffy fill that role.

Given the magnitude of the task facing DOE, it may make sense to have a separate office to carry out the cleanup and compliance efforts. But we have obtained internal DOE memoranda indicating that this new Assistant Secretary would also have the responsibility of monitoring the adequacy of these cleanups and compliance efforts. This would be a big mistake.

Virtually every major industrial corporation today recognizes the importance of separating the responsibility for carrying out operations, which are referred to as line functions, from the responsibilities for monitoring the performance of those functions, known as staff functions. I can tell you from years of auditing and inspecting private corporations, there are generally fewer environmental problems at companies that respect the separation of functions than at those which do not.

One of the most positive developments of Secretary Herrington's tenure was the separation of these line and staff functions achieved by consolidation of oversight functions in the Office of Environment, Safety and Health. Now Secretary Watkins wants to reverse this progress by placing responsibility for oversight with the same people who are carrying out the cleanup. Our concern is not really a hypothetical one. The dismantling of independent, internal oversight responsibility has already occurred in the safety side of the Environment, Safety and Health Office.

In May of this year, Secretary Watkins announced a reorganization that would remove the safety oversight responsibility from Environment, Safety and Health, and place it in individual program offices, such as Defense Programs and Nuclear Energy. Hence, line management responsibility for carrying out the programs would also be entrusted with monitoring itself. This kind of mixing of line staff responsibilities leads to ineffective oversight. The overseers too easily become lapdogs instead of watchdogs.

We have obtained letters from a nuclear engineer now working in DOE's Office of Safety Appraisal, expressing serious concerns about the dismantling of the safety oversight function. He also expresses concern about the potential for inefficiency in this reorganization.

For example, he wrote: "Instead of hiring six seismic experts across three program organizations, you may only need four such experts in a single organization." And then he concludes, "I do not believe that the proposed self-assessment organizations . . . are sufficiently independent of the financial and production pressures such that these organizations could function as truly independent entities." With your permission, Mr. Chairman, I would like to introduce one of Mr. Huff's letters into the record.[1]

Chairman GLENN. Without objection.

Mr. WERNER. Thank you.

We hope that Congress will prevent this dismantling of the existing Environment, Safety and Health Office by codifying the existing Assistant Secretary position for the office, and directing DOE to withdraw its proposed reorganization of the safety oversight function at DOE.

Turning to our last point, another important issue is that when Secretary Watkins committed to developing a 5-year environmental plan earlier this year, he said that the plan would "coordinate and consolidate all Department cleanup activities into a single integrated plan of action." Well, unfortunately, the plan falls far short of that goal. It simply excludes many facilities from the environmental problems. Perhaps the most significant omission in the plan is its exclusion of naval reactor facilities. The Knolls and Kesselring Sites in New York, the Windsor Site in Connecticut, and the Bettis facilities in Pennsylvania and Ohio.

The plan also excludes many facilities with significant environmental problems that were included in the Environmental Needs Report published late last year. These facilities include the Power Marketing Administration facilities, such as those run by the Western Area Power Authorities, and the various fossil energy facilities. Mr. Chairman, Congress must hold Secretary Watkins to his commitment to include all DOE facilities in its environmental planning.

With that, I will conclude and would be happy to take any questions you might have.

Chairman GLENN. Thank you all very much.

As to DOE doing its own prioritization, who do you think should do it, if not DOE? What would be the group or how would we set this prioritization?

Mr. WERNER. That is a difficult question. As we stated, it may be acceptable for DOE to ultimately set its own priorities, but right now we have got several different prioritization models being developed, such as the one by the Department of Defense. EPA has another ranking system, and is now developing a new system for remedial site construction. There are thousands of sites out there in the Federal community, including dozens in the Department of Agriculture. Our concern is that each department should not be creating its own system, independent of one another, and that there at least be some consistency, that they get together and at least lay out some principles on which they can develop a prioritization system.

In summary, it may be acceptable for them to develop their own priorities, but it should be with a system which has some consistency with all the other ones, or it may even be preferable to develop a uniform priority system that EPA or a regulatory agency oversees.

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[1] See p. 208.

Chairman GLENN. Well, as far as I know—you mentioned EPA as developing their own plan. They are not developing a separate plan for the nuclear weapons complex, are they?

Mr. WERNER. That is right, but they have, as you know, several thousand Superfund facilities. They first have to be listed as to whether or not they are going to get studies, and, second, we have a big logjam of facilities awaiting remedial construction funding and there has to be some decisions made about——

Chairman GLENN. That is under Superfund?

Mr. WERNER. That is right.

Chairman GLENN. Yes, but that would not apply directly to the DOE nuclear weapons complex.

Mr. WERNER. Not specifically, no.

Chairman GLENN. Well, I am still a little at sea here as to who would do the prioritizing. Would we form a separate group to do that, or what?

Mr. WERNER. I think that is a possibility, yes.

Chairman GLENN. Well, what would we do in the meantime, then? What do we go on if we really want to get going on the cleanup?

Mr. WERNER. Right now, as we showed in the chart and if you look at the plan, the amount of spending does not require the hard decisions that are definitely going to be needed later on. Right now, we are primarily involved with a few cleanups during remedial construction activities, which are the big dollar items. But, for the most part, it is a lot of remedial investigations and studies that are being carried out.

Chairman GLENN. Maybe I missed the thrust of it. I thought you were pushing to do something right now with this thing, because you indicated that Congress—I wrote it down, Congress should direct the Department of Energy to ignore their prioritization model.

Mr. WERNER. That is what my point is, that there is——

Chairman GLENN. I do not know what we would replace it with right now. I thought it was—boy, you do not know, or maybe you do know, what blood, sweat and tears we went through to get to this point. And to dump the current priority scheme and say that now we finally pushed for the last 4 years, we finally have something to at least hang our hat on to at least start, and revise it as we go along the way, you have a different group or something look at it. I do not know. But for Congress to direct them to ignore their prioritization model now, that is a pretty big pill to swallow, after what we have been through over the last 4 or 5 years getting to this point.

Mr. WERNER. I think we need to separate cleanup from the prioritization. I think we can still get on with the cleanup and there is time. In fact, the National Academy of Sciences, in their comments, said that we have time to develop an adequate prioritization system, that we can go forward with the studies and the few cleanups we are ready to move on, and then develop a new prioritization system, in coordination with——

Chairman GLENN. I thought what you were pushing for was to, in effect, throw out something for nothing at this point, just when we were to the point where we have everybody sensitized that we really have to get going and start doing the cleanup. They are going to have it in the budget next year and this may not be the perfect prioritization plan, but at least something and we are going to get going on it and I am for moving out on it myself, let us move.

Meanwhile, if we can modify this along the way or if you have some better ideas or can put a group together to give a better prioritization than the one they have drawn up, that is fine with me. We can modify this as we go along, but I would really have problems having to dump this prioritization model we have right now, as you suggested, and have a big budget next year and no idea where we are going to go with it.

Mr. REICHER. I just want to say, Mr. Chairman, that we are in no way advocating that cleanup be halted or that we do anything that would affect the pace of getting at the most significant problems in the complex. What we are saying is that we have problems across the Federal Government that involve the entire Federal budget and it may be that we need to set some common principles as between agencies as to how we set priorities. It may be that DOE should not be unilaterally setting its own priorities for the next 30 years in terms of cleanup. It may be that there is a larger role for EPA to coordinate the setting of priorities across the various Federal agencies—DOE, DOD, Agriculture and Interior, or——

Chairman GLENN. Well, I do not quarrel with that at all. You were here I think when we were trying to get DOE and EPA to get together and even ask the Department of Justice over here, for heaven's sakes, to get in and adjudicate this thing and stop all the fussing and get Thornburgh and Reilly and the Admiral together and work something out on this thing, rather than fussing with each other. I agree with that completely.

Mr. REICHER. The model that we are talking about, the prioritization model, is a very specific technical computer model that we have taken issue with in two previous pieces of testimony that develops cleanup priorities that many of your colleagues will tell you in their own States just do not make sense. The model has cleanups at the top of the list that maybe should be at the bottom of the list, and vice versa.

We are focusing on that specific computer model and its adequacy, and what we are urging is that DOE rethink its commitment to that model. We are urging EPA and other agencies to get together with DOE and rethink the whole question of modeling and priority setting. We are in no way advocating that the important activities of cleanup and compliance halt. In fact, what Jim is saying is that those go on and, meanwhile, over the next couple of years, we can perfect a better model that, over the long term, will attack the worst problems first and the lesser problems at a later date.

Chairman GLENN. Some of these things, too, I think have been based, at least in part, on some problems where we have a solution. We know what it is or know what the cleanup is going to be, and other areas that might require a higher priority because there is more radiation, more mixed waste, more hazardous waste, but we do not know yet how we are going to deal with it. So, here we have something that is not as dangerous and we are moving to clean it up, just because we know how to do it.

Mr. WERNER. That is right.

Chairman GLENN. So that is some of the prioritization problem.

Mr. WERNER. There are a variety of factors that have to go into it. There is also the issue of should we stabilize sites first, rather than attempting to go whole-hog and clean up a site completely, perhaps we should attempt to prevent the contamination from spreading and the resulting cleanup costs from going higher. Those are some of the issues that need to be addressed, and an adequate cleanup prioritization model should be developed.

Chairman GLENN. Do you think this idea of fines from one government agency to another is an effective way of dealing with violations?

Mr. REICHER. I do believe that the ability of States to levy fines against the Federal Government not only is provided for in the law as we read it, but does make sense. The issue of whether or not you ought to have EPA actually issuing fines against DOE, I think that is probably less compelling, given that it is all the same pot of money ultimately.

But what we need to stress is EPA's ability to issue orders to comply; that EPA be given the ability to unilaterally order DOE to comply. If DOE does not comply, it would fall to EPA or a State or citizen organization to enforce the failure to comply.

Chairman GLENN. Okay. I basically agree with that. One government agency fining the other is one that I have had a little problem accepting through the years. I am interested in saving taxpayer money, not wasting lawyers' time here, paying high-priced lawyers in government to decide whether we are going to put it in this pocket or your vest pocket or your hip pocket, from transferring our funds from one department to another as though we were accomplishing something on behalf of the taxpayers. That has not made a whole lot of sense to me, but the State situation, suing the Federal Government, that may be different, but I think you can sure jerk some managers out if they are not doing the job they should be doing. You should have some heads roll if there are court orders that are not being complied with and the idea of backing it up with fines, to just transfer taxpayer money from one pocket to another within the Federal Government, I have never thought was a very effective way of doing things.

Mr. REICHER. You should understand, for example, that EPA vigorously goes after municipalities that violate Federal environmental laws and seeks fines and those are paid by those municipalities. So, by the same token, States ought to be able to go after the DOE when there is an order that is not complied with, and seek monetary penalties. Those sorts of fines are among the strongest techniques that we have to insure compliance.

Chairman GLENN. We had another landmark legal settlement Fernald, too, and that was when the citizens group there got organized, Mr. Chestley actually sued and actually got their award and, of course, they are in the process of getting that now or trying to, so that is another aspect to it, too.

Okay. Thank you all very much, gentlemen.

Mr. REICHER. Mr. Chairman, if I could make one additional point, to follow up on something Jim said.

Chairman GLENN. Yes.

Mr. **Reicher**. You asked about the $2.8 to $3.3 billion that the representative from DOE mentioned earlier. We are going to take a look at that, but part of that may well represent consolidation of spending that in earlier years would have been spread out among a variety of accounts, so it is not at all clear, and we will check into this, that this is all new money, and that echoes the point we made earlier about this concern.

Chairman **Glenn**. There may be reductions in other areas once that new budget is submitted, I do not know. This was the amount that he said, when I asked him directly what was going to be planned for cleanup in the new year, what would be asked for in the new budget, he said $2.8 to $3.3 billion. That was a new figure. I had never heard that one before. I think perhaps this was the first time that has been made public.

Okay. Thank you very much, gentlemen. We appreciate it. It has been a long hearing this morning and the Committee will stand in recess subject to call of the Chair.

Thank you.

[Whereupon, at 12:30 p.m., the Committee was in recess, to reconvene subject to call of the Chair.]

# APPENDIX

United States General Accounting Office

GAO

Testimony

For Release
on Delivery
Expected at
9:30 a.m. EDT
Tuesday
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1989

# GAO's Views on DOE's Environmental Restoration and Waste Management Five-Year Plan

Statement of J. Dexter Peach
Assistant Comptroller General
Resources, Community, and Economic
Development Division

Before the
Committee on Governmental Affairs
United States Senate

Mr. Chairman and Members of the Committee:

We are pleased to provide our views on the Department of Energy's (DOE) Environmental Restoration and Waste Management Five-Year Plan. This plan lays out a $19.1 billion effort over the next 5 years (fiscal years 1991 through 1995) to (1) bring DOE facilities into compliance with environmental laws, (2) begin cleaning up environmental contamination at DOE sites, and (3) manage the wide variety of radioactive and hazardous waste which DOE generates. In addition, the plan begins implementing an applied research and development program to help resolve DOE's environmental problems.

Since 1981, Mr. Chairman, GAO has testified many times and issued numerous reports dealing with environmental, safety, and health problems associated with DOE's nuclear weapons complex. More than 3 years ago, we recognized the huge backlog of environmental problems facing DOE and recommended that DOE develop an environmental strategy which, among other things, would provide the Congress with a comprehensive report on DOE's plans to clean up existing contamination and bring its facilities into full compliance with environmental laws. In March 1987, before this Committee, we recognized a broader need and recommended that DOE develop an overall strategy for its weapons complex which, in addition to providing details for addressing the environmental problems, would also address modernization of the complex and safety problems. When we made these recommendations, we believed such plans were necessary for the Congress and the nation to fully understand the scope and significance of the problems facing DOE.

Over the last year and a half, DOE has issued several reports and plans on these important national issues. These include the Environment, Safety, and Health Report for the Department of Energy Nuclear Defense Complex, dated July 1988; the Environment, Safety, and Health Needs of the U.S. Department of Energy, dated December 1988; the United States Department of Energy Nuclear Weapons Complex Modernization Report, dated December 1988; and, most recently, the Environmental Restoration and Waste Management Five-Year Plan, issued in August 1989.

Certainly, DOE's 5-year plan is an important first step in beginning to lay out an approach for cleaning up its facilities and bringing its operations into compliance with environmental laws. It also begins to provide Congress the type of information it needs to exercise effective oversight. The next step is to develop effective programs to deal with these problems.

With this in mind, my testimony today highlights three important observations about implementing DOE's 5-year plan. First, the cost estimates for resolving the environmental problems remain uncertain. Second, new technologies are not yet available to deal with all cleanup problems or reduce the cost of cleanup.

Finally, a long-term national commitment will be needed to resolve the problems. However, before I discuss these observations let me briefly put in perspective the environmental problems DOE faces.

## DOE'S ENVIRONMENTAL PROBLEMS

In making nuclear weapons, enormous amounts of hazardous and radioactive waste are generated. Historically, this waste was disposed of by methods that allowed it to enter the environment. Some general examples of the waste disposal practices used throughout the complex include shallow land burial for solid waste, and direct discharge of liquid waste into surface impoundments, trenches, and seepage basins. Compounding DOE's environmental problems were storage tanks that leaked and accidental spills from normal operations.

These practices and mistakes have resulted in serious unresolved environmental problems. Specifically, we have called attention to:

-- Leakage from high-level radioactive waste tanks. Over 60 of the 149 single-shell tanks at Hanford, Washington, have leaked or are suspected of leaking high-level radioactive waste into the environment. Some of these leaks were detected more than 25 years ago.

-- Groundwater contamination at numerous facilities throughout the complex. As a result of past disposal practices, the groundwater at many DOE facilities has become contaminated with hazardous and/or radioactive material, some at levels hundreds to thousands of times the drinking water standards. Some contaminated groundwater has migrated off-site.

-- Inactive waste sites. DOE has identified over 3,000 inactive waste sites throughout the complex. Many of these sites contain toxic, hazardous, and/or radioactive material.

-- Noncompliance with environmental laws. DOE has had difficulty in maintaining compliance with environmental laws. Most of the sites in the weapons complex need corrective actions under air, water, or solid-waste regulatory requirements.

Compounding these and other environmental problems have been management problems within DOE, including an attitude among some DOE personnel to overlook serious environmental problems. DOE historically has emphasized production objectives over environmental and safety concerns.

## COST ESTIMATES STILL UNCERTAIN

As we learned more about the significance of these problems, the cost estimates grew. We have reported that, in total, about $35 billion to $65 billion may be needed to clean up environmental contamination, and another $3 billion to $9 billion to bring DOE's operations into compliance with environmental laws.

The 5-year plan provides DOE's latest estimates on what will be needed to address environmental problems at DOE during fiscal years 1991 through 1995. The plan proposes a 30-year goal for cleaning up DOE sites and outlines a $19.1 billion program for environmental corrective action ($690 million), environmental restoration ($6.8 billion), and waste management ($11.6 billion) at DOE sites for fiscal years 1991 through 1995. It is important to note that this $19.1 billion figure covers only a portion of the total eventual cost needed to address environmental problems and that the cost estimates contained in the plan may increase. In that regard, the plan will be updated each year to cover the ensuing 5-year period.

The 5-year plan begins a program that will take decades to resolve. The costs outlined in the plan are only projected for 5 years and thus represent only a portion of what may eventually be needed. For example, the plan calls for $6.8 billion for environmental restoration over the next 5 years, but the eventual costs may be as high as $35 billion to $65 billion. Thus, the plan should be viewed as a first step to solving the problems rather than as a solution, and the Congress should expect DOE's cleanup efforts to have a long-term budgetary impact.

We also believe that the cost estimates contained in the plan over the next 5 years will likely increase. For example, while the plan was being developed, DOE's funding requirements for fiscal year 1990 increased by $357 million beyond what was contained in the proposed budget. Further, recent information provided to us by the outgoing contractor (Rockwell International Corporation) at the Rocky Flats Plant indicates a 38-percent increase of $178 million is needed for the period fiscal year 1991 through 1995 beyond what is contained in the 5-year plan.

Further, as noted in our previous work, the full scope and magnitude of the environmental problems are not known at many DOE facilities since DOE is in the early phases of characterizing the problems. Our experience in studying the environmental problems within DOE has shown that costs generally increase as more is known about the problems. In the 5-year plan, DOE assigned a "low confidence" level to many of the cost estimates. This low confidence level means that DOE does not yet have sufficient information to develop budget quality estimates. For example, our analysis of DOE data for the Hanford Reservation, which has about 1,000 inactive waste sites, shows that the cost estimates for more than 70 percent of the proposed restoration activities have a "low confidence" level attached to them. This "low confidence" level is indicative of the study phase that DOE is in regarding cleanup of its waste sites. Our experience in evaluating the Superfund program administered by the Environmental Protection Agency (EPA) indicates that the less that is known about the extent of contamination, the more likely the cost estimates will increase. Since, at the vast majority of DOE sites the contamination has not been fully characterized, cost increases will be likely.

## NEW TECHNOLOGIES ARE NOT YET AVAILABLE

To support DOE's 30-year cleanup goal and significantly reduce overall program costs, the 5-year plan outlines an aggressive DOE effort to develop and implement new technologies for environmental restoration and waste management. This research includes developing new technologies to minimize waste, developing improved environmental restoration technologies, and developing improved applications of existing technologies. In October 1989, DOE issued a predecisional draft of its Applied Research, Development, Demonstration, Testing, and Evaluation Plan to develop new technologies for environmental restoration and waste management.

While we have not had the opportunity to review this plan in detail, I would like to make some overall observations based on our experience in evaluating DOE programs. It is possible that new technologies could dramatically reduce costs in both the environmental restoration and waste management areas and it does make good sense for DOE to explore that potential. Much of this cost savings occurs because radioactive and contaminated material or soil would not have to be extracted for possible shipment to other locations. This is particularly important because reaching agreements with state and local governments on the location of waste repositories has become increasingly difficult.

One promising example is "in situ vitrification"--solidifying waste in place into a glass-like structure. This technology can be applied to numerous waste sites instead of the costly process of removing, treating, and disposing of such waste. At the Hanford Reservation, DOE estimates that this technology could reduce their remediation costs at certain sites by as much as 44 percent. Other technologies offer similar potential for cost reduction. However, the plan does not provide any detailed cost savings that could eventually be realized.

This Committee and the Congress should not expect dramatic results any time soon. Many of these technologies are years away from being feasibly applied. For example, in situ vitrification is, according to DOE, at least 5 years away from application. I should also point out that issues might exist regarding the long-term care of areas where the waste is treated in situ. DOE projects that other new technologies will not be available for at least 10 to 15 years. Further, developing these technologies will be costly and could, according to DOE data, amount to more than $200 million a year. Thus, the Congress will have to make decisions and tradeoffs regarding the proper balance between funding research and development looking for new ways to solve the problems and funding their resolution through more conventional methods. Finally, DOE has not always had a successful history in developing and applying new technologies. Thus, there is risk that these technologies may not fully realize their promise either in reducing cost or resolving environmental problems.

## THE NEED FOR A NATIONAL COMMITMENT

Finally, I want to talk about the need for a national commitment to support DOE's efforts in putting its house in order. This commitment is crucial because of (1) the huge, long-term costs involved, (2) the number of organizations involved, and (3) the contentious nature of the issues. As a result, finding solutions to DOE's problems will be extremely difficult.

Whether they view DOE's problems in a 1-year, 5-year, or 30-year context, the Congress must realize that resolving the problems will be extremely costly--amounting to billions of dollars each year for decades. Because of this, a strong, bipartisan congressional commitment will be needed to adequately fund DOE's programs over the next 30 years in the face of enormous budget deficits and competing demands for limited funds. Maintaining this congressional commitment will be further complicated by funding requirements that can change considerably from one year to the next.

While DOE must take the lead in resolving its environmental problems, many other organizations such as state and local governments, Indian tribes, and other Federal agencies all have legitimate concerns in resolving them too. For example, EPA has legal responsibilities overseeing certain DOE operations. In addition, the states have authority to set certain standards that DOE must meet, and these standards may vary from state to state. Further, DOE has commitments under various agreements with EPA and certain states regarding how it will conduct its activities and pace its cleanup actions. These and future agreements as well as possible future legislation can all affect the long-term cost of resolving the problems. The support of these organizations in the coming years will likely depend on DOE's ability to convince the public that it can operate its facilities and deal with its problems in a safe and environmentally acceptable manner.

Achieving a national commitment will also be difficult because of the contentious nature of some of the problems. For example, the states that have the contaminated sites and/or temporarily stored waste want the problems resolved or the waste removed. Removing the waste may be difficult because no one else wants to receive it. In addition, many states are concerned about having the waste transported across their boundaries to other locations. The State of Colorado has notified DOE that when the current on-site waste storage limit for the Rocky Flats Plant is reached, no further generation of waste will be permitted. The State of Nevada has stated that it will not permit DOE to build its proposed high-level radioactive waste disposal site at Yucca Mountain, nor will it even permit DOE to do test drilling there. Resolving all these problems requires that DOE work closely with the states to reach agreements that adequately address national as well as state concerns.

## SUMMARY

During the past year the Congress has had the opportunity to view numerous plans to deal with DOE's problems. The candid discussion of these plans is necessary if we as a nation are going to reach a consensus on an overall strategy and detailed implementation plan for correcting DOE's problems. The national consensus as well as DOE's plans are still developing.

The 5-year plan adds to the national debate. I believe its good points are the 30-year goal for achieving cleanup and a companion research and development plan for new technologies. However, I want to stress that DOE's problems are long-term and their resolution is far beyond the 5-year projections contained in the plan. Further, while new technologies offer the promise of cost reductions, the technologies are not mature enough to be implemented now on a wide-scale basis to substantially reduce costs and ensure resolution of the problems.

Today, we have a better understanding of the environmental problems facing the complex. However, DOE is still, to a large degree, in the study phase and is continuing to develop information on the extent of these problems and their possible solutions. Although environmental solutions will be costly and difficult, specific long-range plans are important so that the Congress can judge the pace and direction of DOE's cleanup program.

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Thank you. That concludes my testimony. We would be happy to answer any questions.

(301876)

# STATEMENT OF
# LEO P. DUFFY
# DIRECTOR, OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
# U.S. DEPARTMENT OF ENERGY
# TO THE
# COMMITTEE ON GOVERNMENTAL AFFAIRS
# U.S. SENATE

NOVEMBER 14, 1989

Mr. Chairman, I am pleased to appear before you today to discuss the Department of Energy's (DOE's) efforts to achieve and maintain compliance with environmental laws and the framework under which we plan to operate over the next 5 years.

The Department continues to make steady progress in its efforts to identify compliance issues at each site, sites which require additional assessment, and management actions needed to instill excellence and accountability in its Federal and contractor workforce. The cornerstone of future DOE efforts to restore the environment, to revitalize its organizational culture, and to break with the dysfunctional aspects of its past approaches lies in its *Environmental Restoration and Waste Management Five-Year Plan*.

## INTRODUCTION

Both Congress and the President look to the Secretary to ensure this country's energy security, to contribute to the nation's defense, and to help ensure America's continued scientific and technological leadership.

The Department's nuclear weapons complex is one of the largest industrial operations in the United States dealing with hazardous materials. DOE performs its important mission at research, development, testing, and manufacturing plants located throughout the country. Each is operated for the Federal Government by large industrial corporations -- many in the nuclear or aerospace industries -- under contract with DOE.

Environmental problems at DOE facilities are widespread as a result of past priorities and evolving regulatory standards. In some cases, this may mean that DOE generates waste for which an approved treatment or disposal method has yet to be established.

Most people don't look at waste management as an attractive topic, but the problems created by the generation, treatment, and disposal of waste are confounding this Nation, whether in the form of a "barge without a port," disposable diapers in municipal landfills, or in the disposal of hazardous industrial wastes. Just last March, the Secretary promised Congress that he would deliver a comprehensive plan that outlines specific actions we intend to undertake over the next 5 years to achieve compliance with this Nation's environmental laws and to begin to clean up and restore those sites that we have contaminated over the past 40 years.

Success in implementing the Department's Environmental Restoration and Waste Management Five-Year Plan is linked to a number of Admiral Watkins' initiatives designed to protect the environment, the public, and our workers. The 10-point plan that Admiral Watkins announced last June was designed to chart a new course toward full accountability in the areas of environmental protection, worker safety, and public health. This included the commitment to reset the Department's priorities so that the achievement of environment, safety, and health (ES&H) objectives would take precedence over nuclear weapons production goals. We are now issuing guidance to facility managers on how to achieve this objective, but recognize that our performance over the next several years will be the final measurement of success.

While these environmental initiatives are not unknown to this Committee, I would like to briefly summarize where we stand on several critical activities before I begin to discuss the Department's 5-year planning process. These important activities include the use of "tiger teams" to critically evaluate facility compliance with all ES&H requirements, our continuing efforts to negotiate compliance agreements with Federal and State regulators (similar to the federal facility agreement reached for the Hanford Reservation), and improving the quality of information reported from field offices to Headquarters so that environmental compliance can be effectively monitored.

## "TIGER TEAM" ASSESSMENTS OF DOE FACILITIES

Admiral Watkins is using "tiger teams" to conduct comprehensive *self-assessments* of DOE facilities to help ensure future compliance with all ES&H requirements. In addition to identifying potential ES&H concerns, "tiger teams" independently review facility management systems to help determine the "root causes" of compliance problems. These reviews examine site operations, documentation, compliance agreements, planning, and facility performance in meeting ES&H regulations. EPA and State regulatory officials are invited to monitor DOE "tiger team" assessments and have been participating in these reviews.

Assessments have been completed for the Rocky Flats Plant in Colorado, the West Valley Demonstration Project in New York, the Feed Materials Production Center and the Mound Plant in Ohio, the Y-12 Plant in Tennessee, and the Pantex Plant in Texas. "Tiger teams" will complete assessments of the Kansas City Plant in Missouri, the Nevada Test Site, and the Portsmouth Gaseous Diffusion Plant before the end of the year. Ten additional assessments will take place between January and June 30, 1990. Assessments for the remaining 17 major DOE facilities will be conducted from July 1990 through June 1991. Assessments of all other DOE facilities will be scheduled for completion in 1992.

Admiral Watkins invited specialists from the Occupational Safety and Health Administration (OSHA), who were temporarily assigned to DOE as consultants, to assist in "tiger team" assessments of worker health and safety programs at DOE's Pantex Plant in Texas, the Mound Plant in Ohio, and portions of the Y-12 Plant in Tennessee. DOE hopes to include OSHA inspectors in future "tiger team" inspections.

Copies of draft and final "tiger team" assessment reports are provided to Federal and State regulators. For areas of noncompliance identified in these "tiger team" reports, DOE expects to work with these regulators to negotiate agreements to bring its facilities into compliance with environmental requirements.

## NEGOTIATION OF COMPLIANCE AGREEMENTS

The Department has continued to make steady progress in working with regulators in States and EPA regions in which DOE facilities are located to define and schedule the activities required to bring DOE's facilities into compliance with environmental requirements. Thus far 47 compliance agreements and orders have been executed and DOE is negotiating 22 others.

DOE expects to negotiate additional agreements with States as it continues to implement Admiral Watkins' 10-point environmental protection and waste management plan. DOE has invited 11 States that host DOE nuclear facilities to participate in negotiations that will allow these States direct access to its facilities and improve State environmental monitoring capabilities. An agreement reached with the State of Colorado for improved monitoring of the Rocky Flats Plant is being used as a model for these negotiations. DOE expects to meet with each of the Governors' personal representatives in the near future.

## ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

An equally important and complementary activity that demonstrates a new commitment to environmental protection is the preparation of a DOE-wide action plan, which identifies the activities that must be undertaken in the near-term to improve environmental protection at DOE facilities and within DOE nuclear operations.

The Environmental Restoration and Waste Management Five-Year Plan contains DOE's proposed approach to achieving compliance with environmental laws and regulations and is aimed at protecting public health and the environment at its defense, research, and test facilities. The Plan integrates environmental cleanup and corrective activities, waste management operations, and applied research and technology development activities across programs previously managed by the DOE Offices of Defense Programs, Nuclear Energy, and Energy Research.

For the first time, these activities will be treated as a single, focused, and unified program managed under my direction through a newly established organization within DOE Headquarters -- the Office of Environmental Restoration and Waste Management. To be successful, Admiral Watkins and I believe strongly that this long-term effort must be the "first priority" of a single Headquarters organization, not a "second priority" of an organization responsible for achieving production goals or for performing energy-related research.

The Secretary recently announced his intention to ask Congress to create a ninth assistant secretary position within DOE to head this new Headquarters' organization. Because the number of assistant secretary positions within DOE is currently limited to eight, the Department is reviewing its options -- including legislative proposals -- to establish a new assistant secretary for environmental restoration and waste management.

In its Five-Year Plan, DOE pledges --

o to comply with applicable laws and regulations aimed at protecting the public health and the environment;

o to develop a prioritization system for cleanup activities that will incorporate the views of State and Tribal groups, EPA, and the public with independent technical review by the National Academy of Sciences (NAS);

- to contain known contamination at inactive sites and assess expeditiously the nature and extent of contamination at all others to permit realistic planning, project scheduling, and budgeting for cleanup; and,
- to support the establishment of compliance agreements and fulfill the requirements of those compliance agreements already in place.

The manner in which the Five-Year Plan was prepared reflects the Secretary's determination to create within DOE a new "culture" based on openness and responsiveness to the public's justified scrutiny of our activities. It represents the first time that the public has been involved on a large scale in planning such a major DOE program.

DOE invited representatives chosen by the Governors of the States of Colorado, Idaho, Kentucky, Nevada, New Mexico, Ohio, South Carolina, Tennessee, and Washington to review the Plan while it was being drafted. (Nevada declined to participate in this initial review process but has since been working with DOE on a number of follow-on activities.) We invited elected leaders of the Yakima Indian Nation from Washington State and the Shoshone-Bannock Tribe from Idaho to participate also, as well as representatives from the National Governors Association, the National Conference of State Legislatures, and the National Association of Attorneys General.

After this State and Tribal Working Group's second review, the Plan was reviewed for its technical content and approach by the NAS Board on Radioactive Waste Management. We sought EPA's views while the Plan was under development, and have attempted to address the concerns expressed by all of these groups in the Plan. DOE also published a notice in the ***Federal Register*** to solicit public comments. Concerns expressed by the public will be addressed when we update the Plan early next year, just before we begin to formulate the fiscal year 1992 budget request.

The first version of the Plan utilizes a four-tier ranking system. We now must develop a more scientifically rigorous methodology that prioritizes planned environmental restoration activities on the basis of the threat posed to human health and the environment. We recently met in Denver with the members of the State and Tribal Working Group and EPA to discuss the merits of a technically-defensible, risk-based prioritization system. Representatives from two national public interest groups, the Environmental Defense Fund and the Natural Resources Defense Council, participated also in this meeting. This expanded State and Tribal Working Group is scheduled to meet again later this week. Our objective is to have a new prioritization system operational -- at least on a trial basis -- in time to update the Five-Year Plan next year. We view this ranking system as being especially helpful in the formulation of future budget requests. The priorities we develop would be based on criteria subject to outside review -- from State and Tribal governments, EPA, and the NAS -- that weigh the potential long-term health effects and budgetary capability. If more time is needed to make the prioritization system fully operational, we will take the time.

DOE will continue to involve, and rely upon, independent, outside groups in its annual planning process, in the preparation of regional implementation plans by each major field office and in the implementation of its prioritization system. Others who may be affected by the scope and pace of these cleanup activities -- for example, the citizens' forum at Richland, Washington, or similar public interest groups that have been established at Oak Ridge in Tennessee and at Fernald and Portsmouth in Ohio -- will be asked to share their views.

The first version of the Five-Year Plan was designed to show whether we possess the information needed to do the best job we can to protect the environment and to ensure public health; in those instances where we do not have sufficient data, the Plan identifies how and when we intend to obtain such information. This represents a major program at each DOE facility as we characterize and assess the extent of contamination, where it exists, and assess the potential threat the contamination poses to our workers and the public.

We intend to do everything scientifically feasible to solve problems *in-situ* and not transfer problems from one hole-in-the-ground to another hole-in-the-ground. DOE's highest waste technology priority -- one which poses tremendous opportunity and challenge for our national laboratories, universities, and industry -- is how to treat this contamination without moving it.

Because our Nation has not previously targeted advanced waste technologies as a "high-priority," we don't know all we need to know about the best methods for treating and disposing the radioactive and hazardous wastes we generate. Further research is also needed in the environmental restoration area, related to the extent of contamination in some sites and to regulatory changes that may have to be addressed in the future.

The overall environmental cleanup and waste management program must be keyed to developing innovative technologies that yield long-term disposal solutions, better segregation, treatment, and recycling processes, and lower costs. DOE recently issued its *Applied Research, Development, Demonstration, Testing, and Evaluation (RDDT&E) Five-Year Plan*, a "blueprint" which describes the current state of cleanup and waste minimization technologies and establishes milestones for research to fulfill DOE's three primary goals of reducing risk to human health and the environment, decreasing the overall cost of its restoration activities, and completing its cleanup work within 30 years. The

RDDT&E Plan will foster development of future cleanup and waste management technology, for the first time, on a national and international scale. The strategy and methodology for RDDT&E activities will continue to evolve because much of the needed technology is neither conceptualized nor developed today. The Department's applied research program for waste-related technology has a near-term focus and will be integrated as a single document into the Five-Year Plan next year.

The DOE Office of Energy Research recently issued the first of two reports on environmental restoration and waste management research needs for the mid- to long-term (over a 5- to 20-year planning period). To illustrate the differences between these reports, the RDDT&E Five-Year Plan identifies specific activities that DOE will undertake to reduce the gap that exists between *need* and the *availability of technology* in the area of in-situ waste treatment. The Office of Energy Research reports, on the other hand, identify the principal research needs for environmental restoration and waste management beyond the year 2000.

The technologies we develop in concert with our environmental restoration activities must assume the promulgation of even more stringent environmental regulations. Parallel efforts must also foster the development of technologies, production processes, and materials that minimize the amount of waste generated and requiring disposal. When disposal is necessary, all assurances must be developed to ensure minimum environmental impact.

Another key component of our R&D effort will be to initiate a strong education program to create a pool of talented, technically-trained professionals and practitioners who will devote their careers to addressing environmental and waste management issues. As part of its 5-year planning initiative, DOE will be working with universities to create new technical curricula that emphasize the physical sciences for application to the country's waste management problems. Emphasis will extend from the development of new associate-level degree programs for "practitioners" to financially supporting graduate-level research and internships to support of post-doctoral research.

Admiral Watkins recently announced plans for the creation of a pilot program in New Mexico for an education research center to train personnel and to perform research in the management of nuclear, hazardous, and solid waste. A similar partnership has been established among four South Carolina colleges and universities that focusses on the development of undergraduate curricula and training programs in waste management. DOE hopes to establish additional regional university partnerships and have these pilot programs operational by the end of FY 1990.

The need to start with primary education is being addressed in a K-through-12 outreach program that focusses on teacher training and curriculum development. Curricula development and professorial internships will be the primary focus of an undergraduate training program, addressed through the formation of DOE/university partnerships. DOE will use this mechanism to exchange students, faculty, and staff between colleges and universities and DOE laboratories and to establish collaborative research projects that help address DOE needs.

DOE published a notice in the *Federal Register* last week to solicit public comments on its draft RDDT&E Five-Year Plan. In parallel, DOE has requested the views of the NAS Board on Radioactive Waste Management, several professional societies, the U.S. Geological Survey, and EPA. We will address any comments we receive and integrate the draft RDDT&E Five-Year Plan into the Environmental Restoration and Waste Management Five-Year Plan next spring.

## BENEFITS OF THE FIVE-YEAR PLANNING PROCESS

Although the Resource Conservation and Recovery Act (RCRA) was enacted by Congress in 1976, there was for some time considerable uncertainty as to the extent of RCRA's applicability to DOE facilities, particularly its applicability to radioactive mixed wastes. Although these issues were largely resolved by 1987, the management of mixed waste continues to present unique environmental problems. Admiral Watkins recognized the difficulty in handling mixed waste under the RCRA regulatory framework and directed that the 5-year planning process address this issue.

Another benefit of the Five-Year Plan is the involvement of States, Indian Nations, and environmental and citizen action groups in the process of cleaning up DOE sites. I believe this involvement will promote a better understanding of the risks associated with the handling of all hazardous wastes -- radioactive, toxic, and volatile -- which are a fact of life in today's world. The manufacture, use, and transportation -- even the mere existence -- of such materials around us constitutes an almost daily risk. The question is, "Do the benefits that we derive from the industries that process and utilize these materials, or that create them as a byproduct, exceed the risks associated with their existence?"

The concept of "risk-versus-reward" is anything but unknown. We live side-by-side with hazardous materials every day and barely give their presence a second thought. However, there is a tendency on the part of the public to treat radioactive hazards differently than other -- often more dangerous -- hazards. Other routinely used hazardous materials are far more accessible to the general public than nuclear waste and pose a far greater risk in our daily lives than, for example, the transportation of nuclear material. While all physical and technical standards and measures tell us that radionuclides are no more hazardous to our health than toxic or volatile substances, there is a general misconception on the part of the public to think of them as a more dangerous threat to our daily life. This treatment is unwarranted.

The world's best scientists have worked for 40 years to systematically reduce the risk posed by nuclear technology and nuclear facilities to levels that the public can accept. Despite these efforts, we have been unable to dispel the misconception that wastes generated by DOE pose an intolerable threat to public health and safety.

The "science" of environmental restoration is just beginning to evolve and the Five-Year Plan will do more to accelerate this overdue evolution than anything done previously. The active participation of environmental and public interest groups -- long considered adversarial to DOE -- in the development of its environmental restoration and waste management plans should be the beginning to gaining public understanding of the risks posed by these wastes. The perfect solution is not at hand today and the economic and environmentally-sound solution to this problem must come from a consensus view. Admiral Watkins' 5-year planning initiative is the starting point for developing this consensus.

## CONCLUSION

DOE is undertaking a systematic, focused course of action to address its environmental problems. On-going activities and recent initiatives include implementation of the Secretary's 10-point environmental protection and waste management plan; the use of "tiger teams" to help determine the root causes of management deficiencies that can keep us from complying with this country's environmental requirements; the continued negotiation of federal facility compliance agreements; and implementation of the Environmental Restoration and Waste Management Five-Year Plan, the overall framework for conducting specific environmental activities within DOE over a realistic planning horizon. Admiral Watkins is determined to provide the necessary leadership and to instill within DOE a technical capability that ensures the safety and welfare of its employees and those who work in or live near its facilities.

One significant element of these related activities is that DOE has sought the assistance of outside groups -- groups too often considered as adversarial with respect to the operation of DOE's nuclear production, research, and test facilities -- in its 5-year planning process. This is the first time that DOE has involved outside groups, the EPA, and the public on such a large scale. The utilization of these outside groups is a hallmark of Admiral Watkins' tenure at DOE. It represents a significant change in the way the Department conducts its business.

As a result of these efforts, Congress and the American public can expect --

- a strengthening of the technical capabilities of line managers;
- the integration of environmental protection objectives into the Department's national security mission;
- a markedly improved institutional culture within DOE -- one which will extend to its contract workers;
- DOE to embark on a research program to develop new and innovative environmental cleanup and waste management technologies;
- the development of new programs to improve scientific and technical curricula in our colleges and universities to train those who must continue the work we have started; and,
- a continued "openness" in the management of DOE facilities that will allow increased independent, outside review of DOE programs and actions.

Implementing these measures will hopefully gain public acceptance of our ability to manage and operate DOE-owned facilities safely. Through this process, DOE will assume its proper role as a protector of the environment. We believe that DOE can and will be able to achieve its important national security objectives while complying with this nation's environmental laws.

- DOE -

# STATEMENT OF
# CHRISTIAN HOLMES
# DEPUTY ASSISTANT ADMINISTRATOR
# OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE
# U. S. ENVIRONMENTAL PROTECTION AGENCY
# BEFORE THE
# COMMITTEE ON GOVERNMENTAL AFFAIRS
# U.S. SENATE

November 14, 1989

Good morning, Mr. Chairman and Members of the Subcommittee. Thank you for the opportunity to be here today to discuss the environmental compliance issues at the Department of Energy (DOE) nuclear weapons production complex. With me today are Christopher Grundler, Director of the Federal Facilities Hazardous Waste Compliance Office; and Lisa Friedman, Associate General Counsel.

Today I will provide an overview of EPA's activities with regard to implementation of the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund), and describe some of the Agency's future goals for Federal facility compliance. I will also discuss EPA's ideas on establishing priorities for cleanup at the DOE defense facilities, and EPA's views on the DOE Five-Year Plan. An area I will particularly emphasize is the approach that EPA has developed for the cleanup of these facilities, which involves the development of comprehensive three-party interagency agreements (IAGs) at specific DOE facilities. I will also provide some background on the current dual regulatory framework of mixed waste. I then will provide comments on S. 1304.

## I. OVERVIEW

Through enactment of RCRA and CERCLA, Congress empowered EPA to manage hazardous wastes and to remedy the environmental problems caused by improper past management of these wastes and other hazardous substances. To achieve these goals in a uniform manner throughout the country, it is clear that Congress intended that its mandate for action in waste management include those facilities owned and operated by the Federal government

By the express statutory language of RCRA Section 6001, Federal facilities are subject to the provisions of RCRA and its implementing requirements. Moreover, Executive Order 12088 assigns responsibilities to administrators of executive agencies for (1) the prevention, control and abatement of pollution, and (2) assurance that funds sufficient to attain "compliance with standards" are requested. All active Federal treatment, storage and disposal (TSD) facilities handling hazardous waste must have RCRA permits. In addition, Federal TSDs must address any releases of hazardous waste to the environment.

The Superfund Amendments and Reauthorization Act of 1986 (SARA) makes it clear that Superfund applies to Federal agencies, both procedurally and substantively. The specific requirements for Federal agencies are found in Section 120 entitled "Federal

Facilities." Section 120 sets forth a process to ensure that Federal agencies assess and cleanup their hazardous waste sites within specified time frames. Section 120 also requires Federal agencies to enter into an Interagency Agreement for all facilities on the Superfund National Priorities List (NPL) with EPA for the expeditious completion of all necessary remedial actions at a Federal facility. This CERCLA Section 120 process provides for EPA and state oversight as well as the opportunity for public involvement.

It is imperative that every effort be made to ensure that Federal facilities achieve and maintain a high rate of compliance with such environmental requirements. And it is important to EPA's compliance and enforcement efforts directed toward non-Federal entities that EPA demonstrate its resolve to enforce hazardous waste requirements at Federal facilities with the same vigor it uses at private facilities. In response to Section 120 of CERCLA and the need to address environmental compliance and enforcement concerns at Federal facilities, the Federal Facility Task Force was formed in 1987. The Task Force was created in the enforcement office of OSWER. Currently, Federal facility hazardous waste compliance and cleanup programs are managed in Headquarters by the Federal Facilities Hazardous Waste Compliance Office (FFHWCO) which evolved from the Task Force. FFHWCO's mission is to develop and manage a comprehensive and nationally consistent program addressing RCRA and CERCLA compliance and cleanup issues. These responsibilities include developing guidance and policy, supporting regions in negotiations, addressing disputes elevated to Headquarters, providing program management and budget support, and providing legislative support.

EPA's regional offices manage Federal facility hazardous waste programs out of the Waste Management Divisions. The Regional offices are the focal points for negotiating enforcement agreements and overseeing compliance with RCRA and CERCLA requirements and agreements. Seven out of the 10 Regions have established separate organizational units to address Federal facility hazardous waste compliance and cleanup issues. The Federal facility hazardous waste program has experienced significant growth in FY90. The Regions have 121 FTE and $7.3 million for the CERCLA Federal facility program. The primary CERCLA focus of the Regions is to negotiate and oversee cleanup agreements at the 115 Federal facilities proposed for or on the NPL.

Because of the nature of the problems at Federal facilities, a major focus in EPA over the past two years has been compliance by DOE with the RCRA and Superfund statutes. This is particularly true of the nuclear weapons complex, which is made up of seventeen major facilities. Essentially all of these facilities have, or will have, compliance or cleanup issues dealing with solid, hazardous or radioactive wastes. Indeed, the majority of environmental problems and associated future expenditures at DOE's nuclear weapons facilities are related to solid, hazardous or radioactive waste issues.

I would like to turn next to the progress that has been made on developing interagency agreements with DOE. This discussion will include the identification of cleanups which can begin in the near-term. I will also outline some of EPA's concerns and considerations on establishing priorities for cleanup at the DOE defense facilities.

## II. INTERAGENCY AGREEMENTS

Section 120 of the Superfund law requires that Federal agencies which have NPL sites enter into interagency agreements (IAGs) with EPA to effect the cleanup of those sites. The Agency for Toxic Substances and Disease Registry (ATSDR), an agency of the Public Health Service with public health responsibilities mandated by CERCLA and RCRA, also has an important role in this area. ATSDR is developing agreements with these agencies to cover ATSDR's responsibilities for health assessments, pilot studies of health effects, full-scale epidemiologic or other health studies, registries of exposed persons, health surveillance programs, health consultations, emergency response activities and development of toxicological profiles.

With regard to EPA concerns, Federal facilities with RCRA permits must conduct corrective actions for on-site solid waste management units which have releases to the environment. Most o the facilities making up the DOE's nuclear weapons complex are

| Facility | Parties | Statute(s) | Date Executed |
|---|---|---|---|
| Lawrence Livermore National Lab | DOE/EPA | TSCA | 03/19/87 |
| Savannah River Site | DOE/South Carolina | RCRA | 05/01/87 |
| Idaho National Engineering Lab | DOE/EPA | RCRA | 07/10/87 |
| Savannah River Site | DOE/EPA | RCRA | 07/30/87 |
| Savannah River Site | DOE/South Carolina | CAA | 09/04/87 |
| Brookhaven National Lab | DOE/EPA | TSCA | 09/04/87 |
| Savannah River Site | DOE/South Carolina | SDWA | 09/09/87 |
| Lawrence Livermore National Lab (Site 300) | DOE/California | CA State Hazardous Waste Law | 09/25/87 |
| Paducah Gaseous Diffusion Plant | DOE/Kentucky | CWA | 09/28/87 |
| Savannah River Site | DOE/South Carolina | SDWA | 10/07/87 |
| Savannah River Site | DOE/South Carolina | RCRA | 11/12/87 |
| Savannah River Site | DOE/South Carolina | RCRA | 11/12/87 |
| Savannah River Site | DOE/South Carolina | RCRA | 12/29/87 |
| Western Area Power Administration | DOE/EPA | RCRA | 12/30/87 |
| Naval Petroleum Reserves - California | DOE/EPA | CAA | 02/04/88 |
| Great Plains Gasification Plant | DOE/EPA/North Dakota | CAA | 03/25/88 |
| Lawrence Livermore National Lab | DOE/EPA/California | CERCLA | 11/01/88 |
| Paducah Gaseous Diffusion Plant | DOE/EPA | CERCLA | 11/04/88 |
| Savannah River Site | DOE/South Carolina | RCRA | 11/23/88 |
| Monticello Mill Site/ Vicinity Properties | DOE/EPA/Utah | CERCLA | 12/22/88 |
| Los Alamos National Lab | DOE/EPA | CWA | 02/13/89 |
| Savannah River Site | DOE/South Carolina | RCRA | 02/16/89 |
| Hanford Site | DOE/EPA/Washington | CERCLA/RCRA | 05/15/89 |

| | | | |
|---|---|---|---|
| Kansas City Plant | DOE/EPA | RCRA | 06/23/89 |
| Rocky Flats Plant | DOE/Colorado | RCRA | 07/14/89 |
| Rocky Flats Plant | DOE/EPA/Colorado | RCRA | 09/19/89 |
| Portsmouth Gaseous Diffusion Plant | DOE/EPA | RCRA/CERCLA | 09/27/89 |
| Rocky Flats Plant | DOE/State | RCRA | 11/03/89 |
| Savannah River Plant | DOE/State | RCRA | 12/12/89 |

* Total of 48 Agreements (Agreements include Federal Facility Compliance Agreements, Federal Facility Agreements, Settlement Agreements, Consent Orders.)

prepared by K. Taimi/EH-232/586-5518/disc ecd#5/"fed-sta.agr"/WordPerfect

March 07, 1990

EH-232 LIST OF
ENFORCEMENT ACTIONS AGAINST DOE
MANAGEMENT AND OPERATING (M&O) CONTRACTORS

| Facility | M&O | Action | Regulator | Date |
|---|---|---|---|---|
| Great Plains | GPGA | Consent Agreement (CAA) | State of SD | 2/18/85 |
| FMPC | NLO | Complaint (TSCA) | EPA Region V | 3/12/85 |
| Great Plains | GPGA | Consent Agreement (CAA) | State of SD | 3/12/85 |
| SNLL | Sandia Corp. | Site Cleanup Order | State of CA | 9/18/85 |
| LANL | Univ. of CA | Order (RCRA) | State of NM | 10/25/85 |
| FMPC | NLO | Lawsuit* (RCRA/CERCLA/CWA) | State of OH | 3/11/86 |
| BNL | Assoc. Univ. | Order | EPA Region II | 9/4/87 |
| LLNL | Univ. of CA | Complaint (TSCA) | EPA Region IX | 3/27/86 |
| ETEC | Rockwell | Order (CAA) | EPA Region IX | 6/11/86 |
| RFP | Rockwell | Complaint (TSCA) | EPA Region VIII | 6/30/86 |
| FMPC | Westinghouse | Lawsuit (CAA) | State of OH | 3/18/87 |
| LLNL-Site 300 | Univ. of CA | Admin. Complaint* (RCRA) | State of CA | 9/25/87 |
| RFP | Rockwell | Compliance Order* (RCRA) | State of CO | 5/3/88 |
| SNLA | AT&T | Compliance Order* (RCRA) | State of NM | 5/11/88 |
| RFP | Rockwell | Complaint (TSCA) | EPA Region VIII | 6/27/88 |
| LANL | Univ. of CA | Compliance Order* (RCRA) | State of NM | 8/30/88 |

*Action also taken against DOE

| Facility | M&O | Action | Regulator | Date |
|---|---|---|---|---|
| SNLL | Sandia Corp. | Site Cleanup Order* | State of CA | 9/21/88 |
| NTS | Reynolds | Order (CWA) | State of NV | 12/2/88 |
| FMPC | WMCO | Order (RCRA) | EPA Region V | 2/9/89 |
| LLNL-Site 300 | Univ. of CA | Order* (RCRA) | EPA Region IX | 3/8/89 |
| Y-12 | Martin Marietta | Order* (RCRA) | State of TN | 3/14/89 |
| ORNL | Martin Marietta | Order* (RCRA) | State of TN | 3/14/89 |
| ORGDP | Martin Marietta | Order* (PCRA) | State of TN | 3/14/89 |
| RFP | Rockwell | Order* (RCRA) | State of CO | 6/7/89 |
| RFP | Rockwell Intl. | Order (RCRA) | EPA Region VIII | 9/19/89 |
| Oak Ridge | Union Carbide (past operator) | Order* (TN CERCLA) | State of TN | 1/8/90 |

*Action also taken against DOE.

**Prepared by EH-232**
**(K. Taimi)**
**(ws/ECD#7/enforcem)**

## MANAGEMENT AND OPERATING CONTRACTORS

| CONTRACTOR NAME | FACILITY OR SERVICE RENDERED AND LOCATION | CONTRACT NUMBER & FY 1989 OBLIGATIONS ($000) |
|---|---|---|
| Allied-Signal Inc. | Kansas City Plant<br>Kansas City, Missouri | AC04-76DP00613<br>$ 552,642 |
| Associated Universities, Inc. | Brookhaven National Laboratory<br>Upton, New York | AC02-76CH10016<br>$ 301,274 |
| AT&T Technologies, Inc. | Sandia National Laboratory<br>Albuquerque, New Mexico | AC04-76DP00789<br>$ 1,186,592 |
| Battelle Memorial Institute | Pacific Northwest Laboratories<br>Richland, Washington | AC06-76RL01830<br>$ 182,936 |
| Bechtel Petroleum Operations, Inc. | Naval Petroleum Reserves<br>in California<br>Tupman, California | AC01-85FE60520<br>$ 156,289 |
| Boeing Petroleum Services, Inc. | Strategic Petroleum Reserve<br>Harahan, Louisiana | AC96-85PO21431<br>$ 199,034 |
| California, University of | Laboratory of Energy-Related<br>Health Research<br>Davis, California | AC03-76SF00472<br>$ 1,404 |
| California, University of | Laboratory of Radiobiology and<br>Environmental Health<br>San Francisco, California | AC03-76SF01012<br>$ 3,178 |
| California, University of | Lawrence Berkeley Laboratory<br>Berkeley, California | AC03-76SF00098<br>$ 191,260 |
| California, University of | Lawrence Livermore National<br>Laboratory<br>Livermore, California | W-7405-ENG-48<br>$ 1,040,583 |
| California, University of | Los Alamos National Scientific<br>Laboratory<br>Los Alamos, New Mexico | W-7405-ENG-36<br>$ 984,965 |
| Chicago, University of | Argonne National Laboratory<br>Argonne, Illinois | W-31109-ENG-38<br>$ 322,865 |
| E. I. DuPont DeNemours & Co., Inc. | Savannah River Laboratory<br>and Plant<br>Aiken, South Carolina | AC09-76SR00001<br>$ 273,400 |

## MANAGEMENT AND OPERATING CONTRACTORS (Continued)

| | | |
|---|---|---|
| EG&G Idaho, Inc. | Idaho National Engineering Laboratory<br>Idaho Falls, Idaho | AC07-76ID01570<br>$ 373,348 |
| EG&G Energy Measurements, Inc. | Timing, Firing and Scientific Support<br>Las Vegas, Nevada | AC08-88NV10617<br>$ 160,815 |
| EG&G Mound Applied Technologies | Mound Facility<br>Miamisburg, Ohio | AC04-88DP43495<br>$ 231,479 |
| General Electric Co. | Knolls Atomic Power Laboratory<br>Schenectady, New York | AC12-76SN00052<br>$ 297,777 |
| General Electric Co. | Pinellas Plant<br>Jacksonville, Florida | AC04-76DP00656<br>$ 111,575 |
| Georgia Research Foundation, University of | Savannah River Ecology Laboratory<br>Athens, Georgia | AC09-76SR00819<br>$ 6,959 |
| Holmes & Narver, Inc. | Architect-Engineer Services<br>Las Vegas, Nevada | AC08-86NV10471<br>$ 68,225 |
| Iowa State University | Ames Laboratory<br>Ames, Iowa | W-7405-ENG-82<br>$ 21,328 |
| John Brown E. & C., Inc. | Naval Petroleum and Oil Shale Reserves/Colorado, Utah & Wyoming<br>Casper, Wyoming | AC01-86FE60896<br>$ 10,141 |
| Kaiser Engineers Hanford Co. | Construction at Hanford Site<br>Richland, Washington | AC06-87RL10900<br>$ 0 |
| Lovelace Biomedical and Environmental Research Institute | Inhalation Toxicology Research Institute<br>Albuquerque, New Mexico | AC04-76EV01013<br>$ 13,808 |
| Martin Marietta Energy Systems, Inc. | Oak Ridge National Laboratory, Oak Ridge and Paducah Gaseous Diffusion Plants, Y-12 Plant<br>Oak Ridge, Tennessee | AC05-84OR21400<br>$ 1,338,185 |
| Martin Marietta Energy Systems, Inc. | Portsmouth Gaseous Diffusion Plant<br>Piketon, Ohio | AC05-76OR00001<br>$ 141,160 |
| Mason & Hanger-Silas Mason Co. | Pantex Plant<br>Amarillo, Texas | AC04-76DP00487<br>$ 165,365 |

## MANAGEMENT AND OPERATING CONTRACTORS (Continued)

| | | |
|---|---|---|
| Midwest Research Institute | Solar Energy Research Institute<br>Golden, Colorado | AC02-83CH10093<br>$ 55,422 |
| M-K Ferguson Co. | Construction Management Services<br>Idaho Falls, Idaho | AC07-79ID01750<br>$ 56,760 |
| Oak Ridge Associated Universitites, Inc. | Research and Training Facilities<br>Oak Ridge, Tennessee | AC05-76OR00033<br>$ 38,972 |
| Princeton University | Princeton Plasma Physics Laboratory<br>Princeton, New Jersey | AC02-76CH03073<br>$ 104,974 |
| Protection Tech Idaho, Inc. | Security Services<br>Idaho Falls, Idaho | AC07-99ID12715<br>$ 1,143 |
| Reynolds Electrical and Engineering Co., Inc. | Weapons Test Support Services<br>Las Vegas, Nevada | AC08-89NV10630<br>$ 371,544 |
| Rockwell International Corp. | Energy Technology Engineering Center<br>Canoga Park, California | AC03-76SF00700<br>$ 17,853 |
| EG & G Rocky Flats, Inc. | Rocky Flats Plant<br>Golden, Colorado | AC04-90DP62349<br>$ 0 |
| Rockwell International Corp. | Specific Manufacturing Capability Plant<br>Idaho Falls, Idaho | AC07-87ID12600<br>$ 45,971 |
| Ross Aviation | Air Transportation Services<br>Albuquerque, New Mexico | AC04-89AL52318<br>$ 5,788 |
| Rust Engineering Corp. | Construction Services<br>Oak Ridge, Tennessee $92,946 | AC05-79OR05663<br>$ 54,418 |
| Southeastern University Research Association | Continuous Electron Beam Accelerator Facility | AC05-84ER40150<br>$ 55,967 |
| Stanford University | Stanford Linear Accelerator Facility<br>Stanford, California | AC03-76SF00515<br>$ 138,491 |

## MANAGEMENT AND OPERATING CONTRACTORS (Continued)

| | | |
|---|---|---|
| Universities Research Association, Inc. | Superconducting Supercollider Laboratory<br>Waxahachie, Texas | AC02-89ER40486<br>$ 19,364 |
| University Research Association, Inc. | Fermi National Accelerator Laboratory<br>Batavia, Illinois | AC02-76CH03000<br>$ 231,711 |
| Wackenhut Services, Inc. | Security Services<br>Las Vegas, Nevada | AC08-87NV10559<br>$ 22,381 |
| Wackenhut Services, Inc. | Security Services<br>Aiken, South Carolina | AC09-88SR18002<br>$ 43,683 |
| West Valley Nuclear Services | West Valley Project<br>West Valley, New York | AC07-81NE44139<br>$ 62,366 |
| Westinghouse Electric Corp. | Waste Isolation Pilot Plant<br>Carlsbad, New Mexico | AC04-86AL31950<br>$ 73,418 |
| Westinghouse Electric Corp. | Bettis Atomic Power Laboratory<br>West Mifflin, Pennsylvania | AC11-89PN38014<br>$ 288,833 |
| Westinghouse Electric Corp. | Savannah River Laboratory and Plant<br>Aiken, South Carolina | AC09-89SR18035<br>$ 1,220,622 |
| Westinghouse Hanford Co. | Operations & Engineering Services at Hanford<br>Richland, Washington | AC06-87RL10930<br>$ 666,646 |
| Westinghouse Idaho Nuclear Co. Inc. | Idaho Chemical Processing Plant<br>Idaho Falls, Idaho | AC07-84ID12435<br>$ 105,572 |
| Westinghouse Materials Co. of Ohio | Fernald Feed Materials Production Center<br>Fernald, Ohio | AC05-86OR21600<br>$ 209,692 |

United States Government Department of E

# memorandum

DATE: OCT 31 1989

REPLY TO
ATTN OF: MA-405

SUBJECT: ACTION: Award of Letter "Bridge Contract" Modification to The BDM Corporation (BDM) for Acquisition of Technical Support Services

TO: Under Secretary

ISSUE:

A sole-source extension of contract DE-AC01-87DP48042 with BDM, estimated to cost $3.6 million for a 6-month extension, with 3-month option, is sought by the Office of Defense Waste and Transportation Management. An investigative team of Senator Pryor's Subcommittee on Governmental Affairs is particularly critical of the services being performed by BDM for the Department of Energy (DOE) under the contract where an extension is sought, as well as BDM under a subcontract to Systematic Management Services Corporation. It is believed by the investigative team that BDM has prepared congressional testimony in the past for use by officials of the DOE.

BACKGROUND:

Contract DE-AC01-87DP48042 was awarded on April 3, 1987, as a result of a competitive solicitation for technical and analytical support services planned to be performed over a 3-year period. Services under this contract have been used faster than planned during the last 12 months, with the result that hours planned to be available through February 1990 have been exhausted in October 1989. Moderate cost growth has also occurred under the contract.

A solicitation for a competitive follow-on contract (DE-RP01-89DP48063) was issued on July 7, 1989, and proposals were received on October 11, 1989. Due to the evaluation process inherent in source selection of a highly qualified contractor, the award of the follow-on contract cannot possibly be completed by November 1989. Approval to use a sole-source "bridge" contract between the current BDM contract and the anticipated new contract, resulting from the recently issued solicitation, has been properly justified. Before approval to award the letter "bridge" contract modification to the BDM contract is granted, consideration has been given to the ongoing investigation initiated some 3 months ago at the request of Senator Pryor's Subcommittee on Governmental Affairs.

SOURCE SELECTION INFORMATION
SEE FAR 3.104

DISCUSSION:

Investigations by this Subcommittee have already been conducted of other government agencies, including the Department of Defense (DOD) and the Environmental Protection Agency, and hearings have been held before Senator Pryor. Senator Pryor was particularly critical of the DOD's use of BDM to assist in the development of weapons systems, while at the same time providing technical and analytical support services to the DOD component responsible for testing of those weapons systems. The DOD hearings before Senator Pryor resulted in media coverage of the Committee's concerns.

After an indepth review of over 120 official contract files over the last 3 months, and extensive interviews with procurement, administrative, legal, and program personnel, the investigative team has concentrated its attention during the past month on three awards by the DOE. Two of those awards are in support of Defense Programs, and one of the awards is in support of the Environment, Safety, and Health (ES&H). The investigative team found evidence that the technical and analytical support services under the Defense Programs contracts are being used for, among other things, the support of the work of the Secretary's office relating to preparation of congressional testimony. The investigative team found evidence that the technical support services under the ES&H contract is being used to staff the "tiger" teams for the conduct of environmental reviews at DOE field locations. The investigative team believes that the DOE is using contractors to accomplish vital federal functions, and does not have sufficient senior management visibility of the amount and scope of activities currently being performed by its support service contractors. Hearings are scheduled before Senator Pryor's Subcommittee on Monday, November 6, 1989, in which the evidence and concerns of the Subcommittee will be aired.

Guidance is needed with regard to whether or not the DOE should proceed to award the noncompetitive letter "bridge" contract modification to the BDM contract DE-AC01-87DP48042 in light of the following concerns:

1. It may be contended by Senator Pryor that the DOE knowingly used a major contractor to assist in the preparation of congressional testimony without senior management oversight of the contribution and assistance of the contractor.

SOURCE SELECTION INFORMATION
SEE FAR 3.104

2. It may be contended by Senator Pryor that the DOE over-utilized the contract with BDM (by using the Direct Productive Manhours more rapidly than planned) in performing services inappropriate to be performed by a contractor, with the result that an "emergency" sole-source award was required to continue vital federal functions.

3. It may be argued that the "emergency" award of a letter "bridge" contract modification demonstrates Senator Pryor's point that the Government is being performed by invisible contractors performing vital federal functions.

4. In the event that a "bridge" award is not made, a major impact on the Office of Defense Waste and Transportation Management is anticipated.

ACTION:

Guidance is requested as to whether or not the pending letter "bridge" contract modification extending the contract with BDM for 6 months, with a 3-month option, at an estimated cost of $3.6 million, should be authorized for award.

Berton J. Roth, Director
Directorate of Procurement
and Assistance Management

APPROVED: J. C. Tuck
DISAPPROVED: ____________
DATE: 10-31-89

MA-405:DNewman:cm:586-1370:10-31-89

SOURCE SELECTION INFORMATION
SEE FAR 3.104

# U.S. DEPARTMENT OF ENERGY
# OFFICE OF PROCUREMENT OPERATIONS
# JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION

I recommend that negotiations be conducted only with the BDM Corporation for the services described herein.

1. The Office of Defense Waste and Transportation Management (DWTM) of the Department of Energy (DOE) plans to contract by means other than full and open competition. This document sets forth the justification and approval of the use of one of the exceptions to full and open competition allowed under the Competition in Contracting Act of 1984.

2. The action requiring approval is the continuation of technical services in support of DWTM's present programmatic activities for assuring nuclear wastes are safely handled, treated, stored, utilized, transported, and disposed of to protect the public health and safety. These services are currently being provided by the BDM Corporation under DOE contract number DE-AC01-87DP48042 which was awarded in April 1987. The estimated level of effort to provide 69,000 ± 10 percent direct productive manhours is nearly exhausted. A solicitation for a competitive follow-on effort (DE-RP01-89DP48063) has been issued and will close October 11, 1989. Due to the evaluation process inherent in source selection of a qualified contractor by a Source Evaluation Board (SEB), the award of the follow-on contract cannot possibly be completed by November 1989. Therefore, DWTM is requesting a bridge contract through extension and modification of the existing contract with BDM Corporation. A 6-month extension (November 1989 to April 1990), with one 3-month option (May-June 1990), is planned.

3. The responsibility of ensuring the safety and health of the public as it relates to handling, treatment, storage, utilization, transportation, and disposal of nuclear wastes is met through a program that includes the following specific functions:
   a. The treatment, storage, and disposal of wastes associated with ongoing operations at active facilities.

   b. Research and development directed toward the long-term disposal of radioactive, hazardous, and mixed wastes.

   c. The environmental restoration of inactive sites and decontamination and decommissioning of inactive DOE facilities.

   d. The development of policies, procedures, and technologies for ensuring the safe transportation of radioactive and hazardous materials.

SOURCE SELECTION INFORMATION
SEE FAR 3.104

This assistance is necessary to comply with local, State, and Federal environmental statutes, regulations, and tri-partite agreements with the Environmental Protection Agency (EPA) to foster a positive, coordinated effort with Federal, State, and local agencies, the public, the media, and Congress.

The services of the support contractor are required for the continued specialized technical and administrative support to DWTM, with no interruption in service for the relatively short period of performance beginning November 1989 and ending March 31, 1990.

The Secretary of Energy made the protection of public health and safety and the environment the top priority activity of the Department. This Secretarial commitment has focused attention on the management of radioactive waste. The Department has been required to comply with local, State, and Federal environmental standards and laws. Legally binding environmental compliance agreements with strict schedules are being signed with States hosting DOE production and waste management facilities. There has been a significant increase in public, press, and congressional interest in, and concern about, radioactive waste.

These requirements affect the technical support service needs of the DWTM program. In particular, the program plans, guidance, analyses, technical studies, etc., needed to manage the program have changed to reflect the urgency of the Secretary's priorities and the congressional pressure to proceed rapidly with the program. The timely preparation of these documents required more support than was anticipated when the contract was awarded and at a more experienced level of expertise. Specific examples include:

(1) The failure of the Waste Isolation Pilot Plant (WIPP) to accept waste in October 1988 was not anticipated when this contract was awarded. DWTM requires three BDM staff full time to assist in the preparation of land withdrawal documentation, to prepare documents for the Western Governors Task Group, and to track actions related to present environmental noncompliance. Senior, experienced staff are required to identify noncompliance issues and assist in the development of alternative courses of action.

(2) The Secretarial initiative to prepare a 5-year plan for environmental restoration and waste management required significant increases in expenditures of the BDM support services contract. This was undertaken after consideration of feasible options such as the use of Management and Operating (M&O) contractors and other Headquarters contracts. Discussion

SOURCE SELECTION INFORMATION
SEE FAR 3.104

with the Secretary's staff resulted in use of the BDM Corporation support services contract as the best means for achievement of these program goals.

(3) The requirements imposed by recent Federal Facilities Agreements (FFA's) are legally binding. These agreements among the EPA, the affected State, and the Department of Energy establish requirements for the environmental aspects of facility operation. These requirements include constraints on generation, treatment, and disposal of waste produced by these facilities. These agreements require DOE Headquarters to conduct activities such as national reporting on materials banned from disposal and reviews of many regulatory reports. DWTM has been supported by BDM in their activities associated with these agreements. Failure to conduct the activities specified in FFA's will result in facility closure.

DWTM is in the process of recompeting this support services contract as a full and open competition. The SEB has been formed and the Request for Proposals (RFP) issued. During this recompetition, the program must proceed and will require support services at a level of 4,500 hours per month to maintain program activities. Without adequate support during this critical period, production sites such as Rocky Flats, Savannah River, and Idaho could be closed; and DOE Headquarters will not be able to review environmental compliance documents, which could result in other site closures. It is expected that a new contract will not be available until the March-April 1990 time frame.

Based on the foregoing, DWTM requires the support services of the BDM Corporation at a level equal to that provided during the last 3 months. This level of support is 4,500 direct productive manhours per month. In addition, publication services (primarily producing 50-100 bound copies of draft documents for internal review) and travel support to allow BDM staff to attend site meetings and conduct site reviews is required. This total effort is estimated to cost $400,000 per month.

The services presently being provided by the incumbent contractor, the BDM Corporation, will cease in November 1989 with the exhaustion of all hours in the current contract. The estimated cost for one 6-month extension (27,000 labor hours) is $2.4 million, with one 3-month option (13,500 labor hours) $1.2 million, for a total of $3.6 million.

4. The circumstances permitting other than full and open competition are prescribed in FAR 6.302-1, "Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements," under the authority of 41 U.S.C. 253(c)(1).

SOURCE SELECTION INFORMATION
SEE FAR 3.104

5. The nature of this acquisition is such that full and open competition is precluded because, as the current support contractor to DWTM, the BDM Corporation is the only company which can provide the required continuity to achievement of program goals during the critical period between November 1989 and the completion of the recompetition. DWTM explored other options, including using M&O contractors, other Headquarters contractors, and Headquarters staff. Use of the existing support services contract is the only practical option. Options for providing support for new initiatives being required by Secretary Watkins were discussed with Leo Duffy, Special Assistant to the Secretary for Coordination of DOE Waste Management, and other members of the Secretary's staff.

   Additionally, only BDM has the requisite number of personnel with familiarity of the program and the required skills, training, availability, and security clearances to provide continuity of services pending award of a follow-on contract resulting from full and open competition. Only BDM staff, through their 29 months of constant contact with the program, is cognizant of the current status of each project and can proceed without interruption.

6. The recompetition of the supported contract is a full and open competition which will solicit offers from all qualified bidders. The RFP closes on October 11, 1989, with award of the follow-on contract expected in the March-April 1990 time frame.

   Planning for a full and open competition follow-on to the existing contract was initiated in the fourth quarter of FY 1988. Support services approval was obtained on January 31, 1989, and a procurement request package was formally submitted to Procurement Operations on December 28, 1988. A SEB, established on January 19, 1989, immediately began its deliberations and published a synopsis of the forthcoming procurement action in February 1989. Due to unavoidable delays in the RFP review and approval cycle, the RFP was not issued until July 7, 1989, with a closing date of September 11, 1989. The solicitation was amended to extend the closing date until October 11, 1989, due to a request from a prospective offeror. The SEB expects award of the follow-on effort sometime in the March-April 1990 time frame.

   Due to the slippage in the schedule for contract award after full and open competition, the exhaustion of available labor hours on or about November 15, 1989, in the existing contract, the serious and possible irreparable harm to defense facilities at DOE nuclear sites through a break in continuity of services, it is deemed necessary

SOURCE SELECTION INFORMATION
SEE FAR 3.104

and appropriate to extend the incumbent contractor as stated in 3 above. This extension will provide a satisfactory level of support through award of the follow-on contract and, if needed, through any necessary transition to a new contractor. It is impractical to seek other sources to bridge the period of time as proposals will have been received in response to the full and open competitive RFP that closes October 11, 1989.

7. The estimated cost to the Government for this action is based on the past performance of the contract over the last 3 months. The services of specific individuals who are currently providing support are being procured. The modification of the contract to raise the hourly rate is based on the actual salaries of these individuals and on the costs of publications support and travel actually provided during the last 3 months. These costs are considered to be reasonable because the current contract was awarded after a full and open competition.

8. To bridge the period of time between exhaustion of labor hours in the incumbent contract and award of the follow-on contract, only the incumbent will have the personnel with the necessary qualifications, availability, and clearances to provide DWTM the continuity of required technical support services after November 15, 1989.

   Under the circumstances, it is impractical and of no benefit to the Government or the competitive process to synopsize the effort as the needs of DWTM were publicized for the follow-on contract and proposals will be received in response to the full and open competitive RFP. No market survey has been conducted because only continuation of the services of the current contractor will meet the need for uninterrupted and cognizant support during the recompetition period.

9. Approval of this action is sought under the authority of FAR 6.302-1, "Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements." This exception to the Competition in Contracting Act is sought due to the fact that only the incumbent contractor can satisfactorily provide expert technical assistance to DWTM with their program activities. A loss of these services, even on a temporary basis, will have a significant adverse effect on the Government. A loss of services will result in noncompliance in environmental remediation agreements with the States and could result in facility closures and statutory penalties resulting in eventual inability of DWTM to fulfill the Department's mission.

SOURCE SELECTION INFORMATION
SEE FAR 3.104

10. Nearly 200 sources have expressed interest in RFP DE-RP01-89DP48063 and were sent copies on July 7, 1989. Proposals are due October 11, 1989. Each proposal received will be evaluated in accordance with DOE SEB procedures. The "bridge contract" will not be synopsized because only the incumbent can meet the Government's needs within the required time.

11. The RFP DE-RP01-89DP48063 has proceeded; however, proposals will need to be evaluated before selection of a contractor can be made. It is not reasonable and foreseeable that this effort can be accomplished by November 1989.

The above is certified accurate and complete to the best of my knowledge and belief.

Acquisition Initiator: Barbara Hammond
Barbara Hammond
9/20/89
(Date)

Contracting Officer: Glenn R Taranto
Glenn Taranto
9/29/89
(Date)

Review

Senior Program Official:
David B. Leclaire
Acting Deputy Assistant Secretary
for Planning and Resource Management
9/24/89
(Date)

Legal Counsel: * Paul A. [illegible]
Assistant Chief Counsel
9/29/89
(Date)
* Subject to waiver of synopsis requirement.

Division Director, MA-452
Jeffrey Rubenstein
OCT 26 [illegible]
(Date)

Contracting Activity Competition Advocate: Aleta Egeland
Aleta Egeland
10/27/89
(Date)

APPROVAL:

Head of Contracting Activity:
David G. Newman
10/27/89
(Date)

SOURCE SELECTION INFORMATION
SEE FAR 3.104

## SUMMARY MEMORANDUM

DATE: October 31, 1989 SECRETARIAL ACTION REQUESTED BY:

Orig. Office: MA-405: Newman: 586-1370

Transmittal: ACTION: Approval/Disapproval of Letter "Bridge" Contract to The BDM Corporation

To: Under Secretary

Issue: The BDM Corporation, under contract DE-AC01-87DP48042, has expended all of the hours on the contract. The contract is for technical and analytical support services for the Office of Defense Waste and Transportation Management.

Timing: The BDM Corporation must cease support of the Defense Programs efforts until a bridge contract is awarded.

Discussion: Senator Pryor's Subcommittee on Governmental Affairs has been reviewing the Department of Energy's use of support service contracts. The BDM contract has been particularly criticized as discussed in more detail in the attached action memorandum. These issues should be brought to the Secretary's attention before a decision is made to award the letter bridge contract.

Recommendation: A decision should be made whether or not to authorize a letter bridge contract award to The BDM Corporation.

Berton J. Roth, Director
Directorate of Procurement
and Assistance Management

**SOURCE SELECTION INFORMATION**
**SEE FAR 3.104**

October 27, 1989

Dear Senator Rockefeller,

I have just recently had time to study Secretary Watkins' latest proposals with respect to satisfying the concerns of those of us who wish to preserve effective internal independent nuclear safety oversight here at DOE. I can only say that I am astonished at the outright stupidity and naivete of DOE's top managers as they attempt to justify their ill-conceived DOE reorganization plans by the proliferation of safety oversight organizations within the Department. Apparently, none of them have heard of the KISS principle when it comes to management effectiveness and efficiency. What they have proposed can only lead to further confusion in an already confused safety management hierarchy within DOE. What the Department needs is not safety organization proliferation through reorganization but more definition, focus, and support for the safety organizations that already exist.

With respect to the creation of separate Nuclear Self-Assessment Offices in Defense Programs, Nuclear Energy, and Energy Research, simple logic coupled with the lessons of history tells us that such fragmentation of nuclear safety oversight responsibilities leads to inconsistencies in the administration of safety goals and policies that usually require the investment of additional resources in order to help maintain the desired level of consistency (the proposal to create a new Office of Nuclear Safety is evidence of a recognition of this need). This inefficiency is further compounded by the inefficient use of limited technical resources that is inherent in such a proposal (e.g., instead of hiring 6 seismic experts across three separate safety organizations, you may only need 4 such experts in a single organization). Considering the current pressures within the Federal Government to reduce costs by eliminating inefficient practices, I can find no logical justification for going forward with the current DOE reorganization plans. I can only conclude that this latest plan is an attempt by top DOE management to save face and I don't believe that the American public should have to spend a single cent in order to satisfy their egos. Furthermore, I do not believe that the managers who would be directly responsible for controlling the proposed safety self-assessment organizations (i.e., DP-1, NE-1, and ER-1) are sufficiently independent of the financial and production pressures such that these organizations could function as truly independent entities.

In conclusion, the Office of Environment, Safety and Health (ES&H) was organized to be the Secretary of Energy's right arm with respect to "all" aspects of safety at DOE's facilities. There is no need for any new Nuclear Self-Assessment Offices or an Office of Nuclear Safety that reports directly to the Secretary. The recent argument by Undersecretary John Tuck that nuclear safety would somehow magically lose its visibility within ES&H at some future date is totally illogical and fundamentally absurd. Both nuclear and non-nuclear safety policies and standards will need to be reemphasized and implemented at all of the Department's facilities and this can be most effectively and efficiently accomplished by enhancement of the current ES&H organization and not by reckless reorganization plans that can only serve to cost us more money and reduce the effectiveness of nuclear safety oversight at a time when we can least afford it. I hope that I can count on your continued support in opposing this reorganization plan.

Sincerely,

Darrell A. Huff
Nuclear Engineer
Charles Town, WV